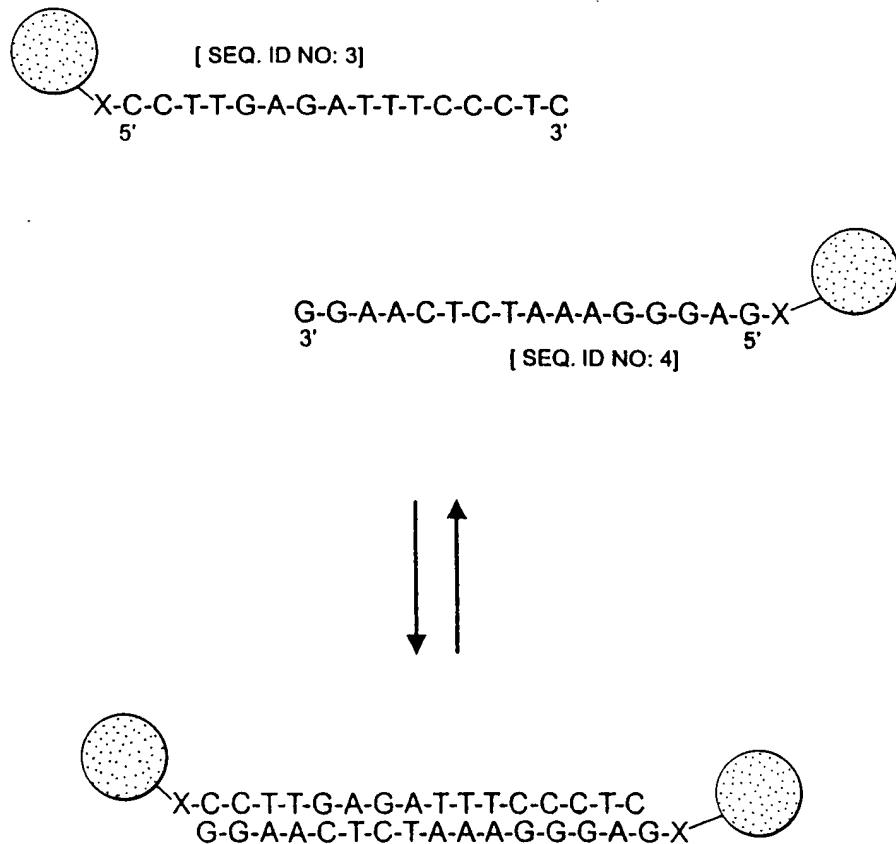




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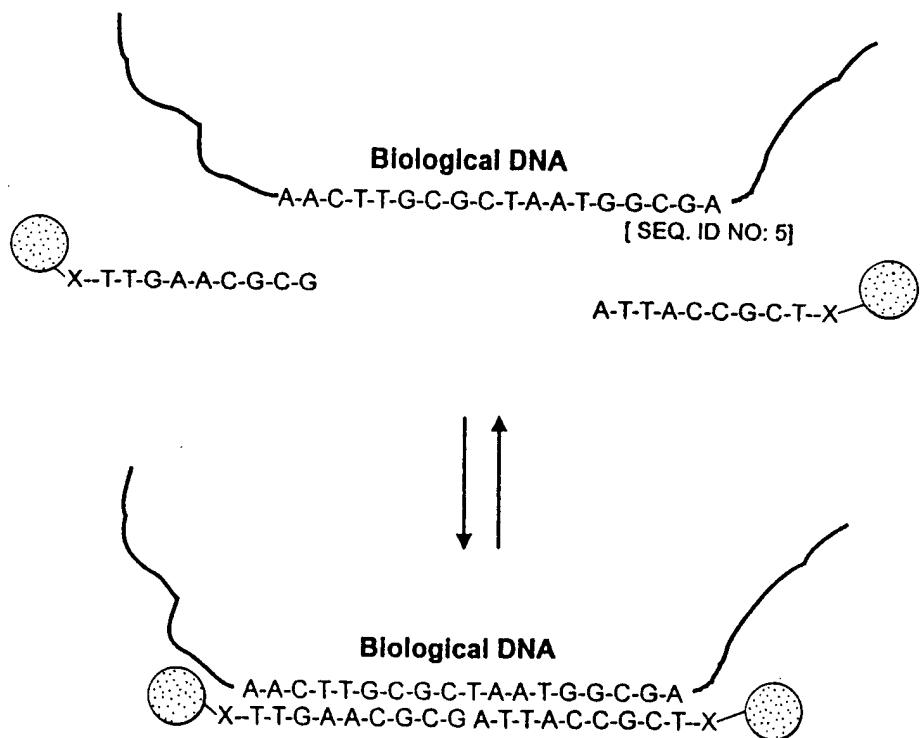
FIG. 1



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FIG. 2



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FIG. 3

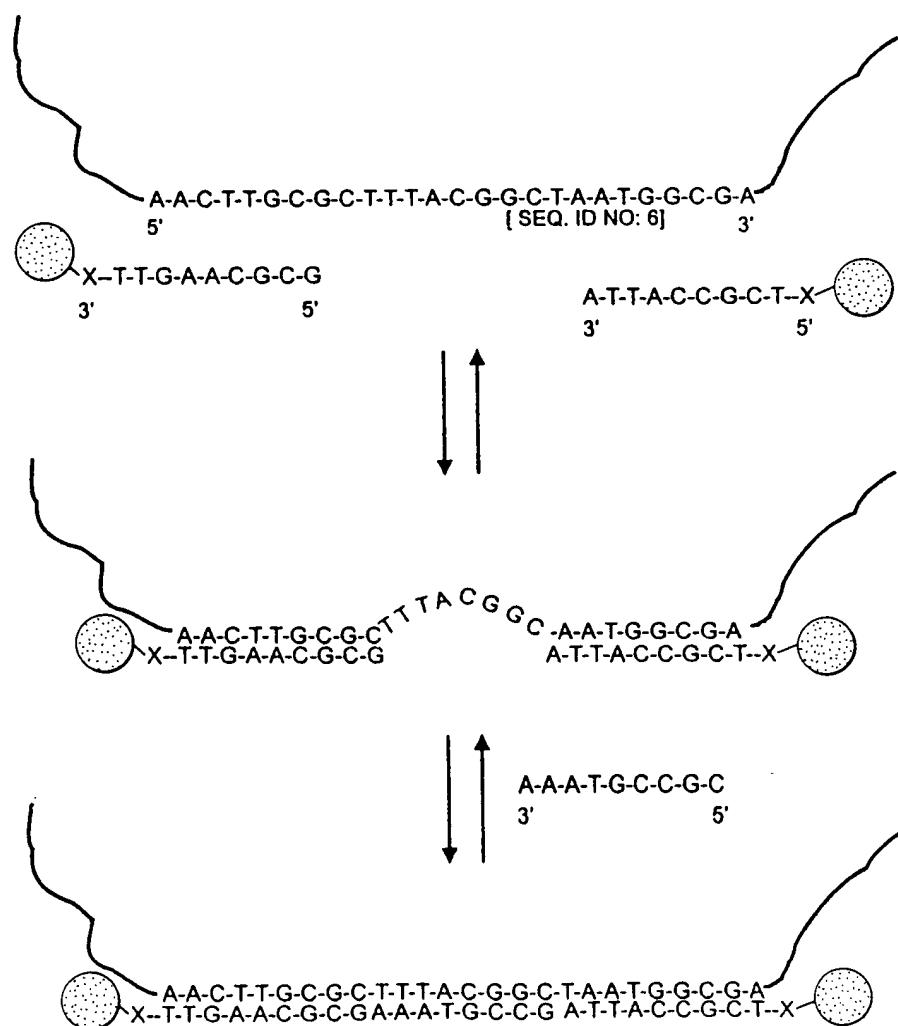
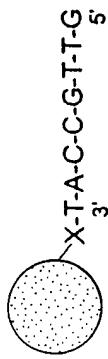
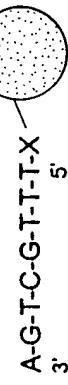


FIG. 4 Linking oligonucleotide

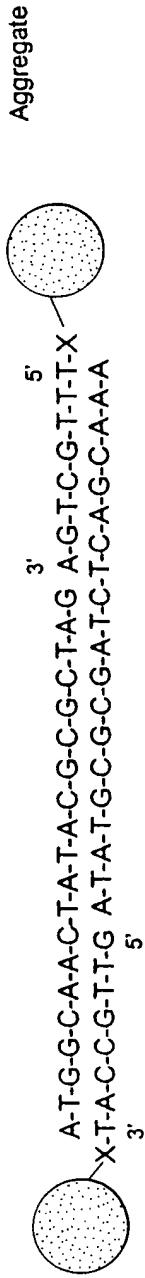
5' A-T-G-G-C-A-A-C-T-A-T-A-C-G-C-T-A-G
 3' A-T-A-T-G-C-G-C-G-A-T-C-T-C-A-G-C-A-A-A
 [SEQ. ID NO:2] → [SEQ. ID NO:1] →



Colloids



Heat
 Mix below T_m



Heat
 Stand below T_m

Precipitate (formed by further cross-linking)

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FIG. 5

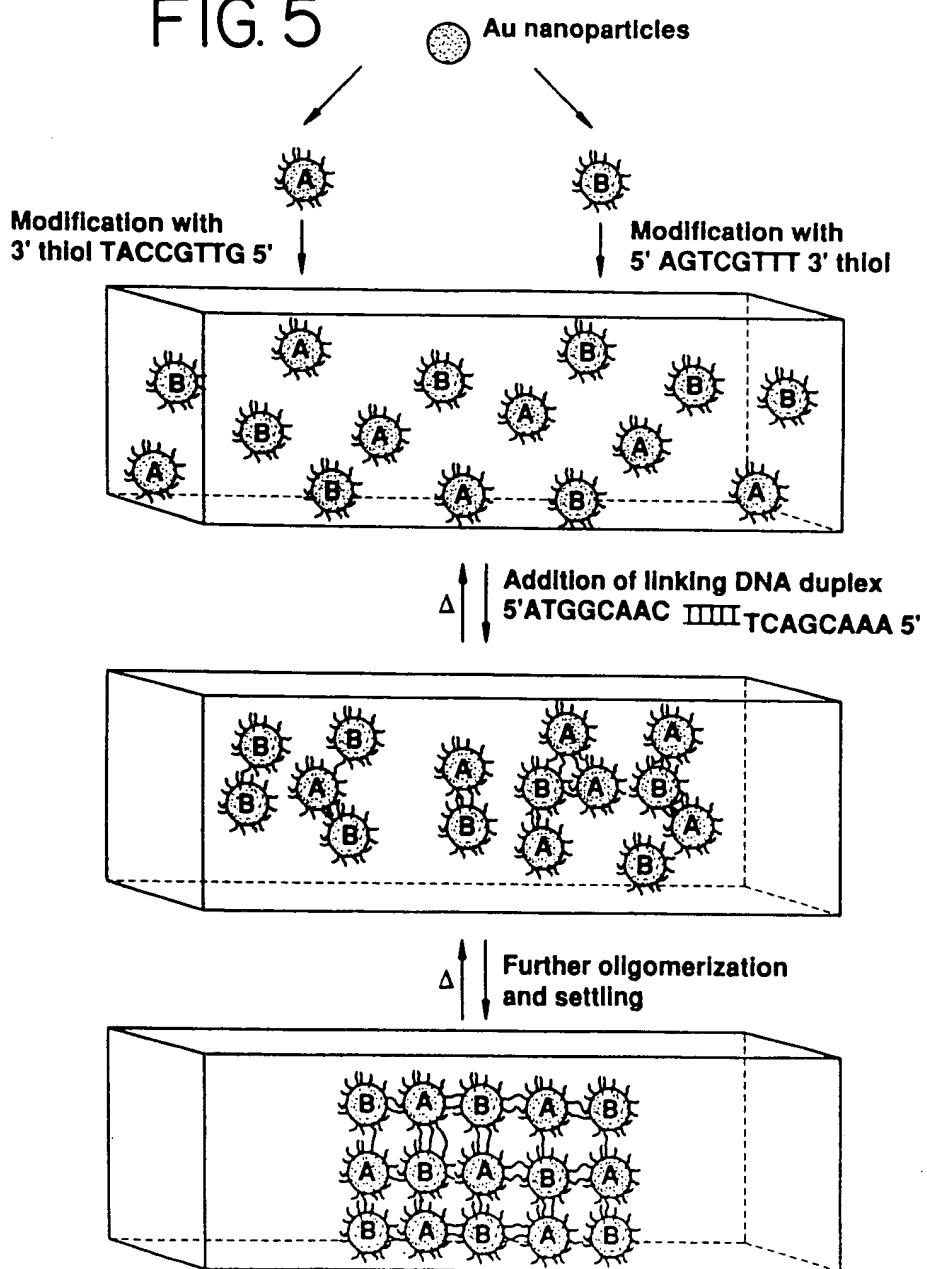
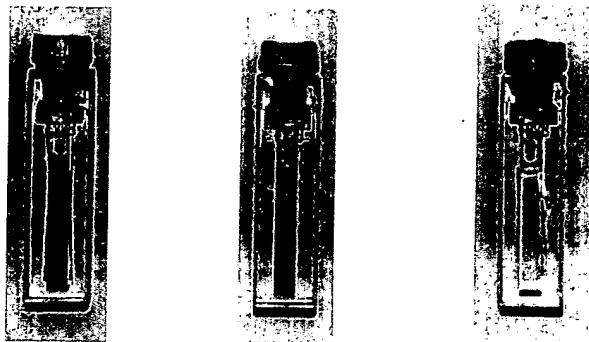
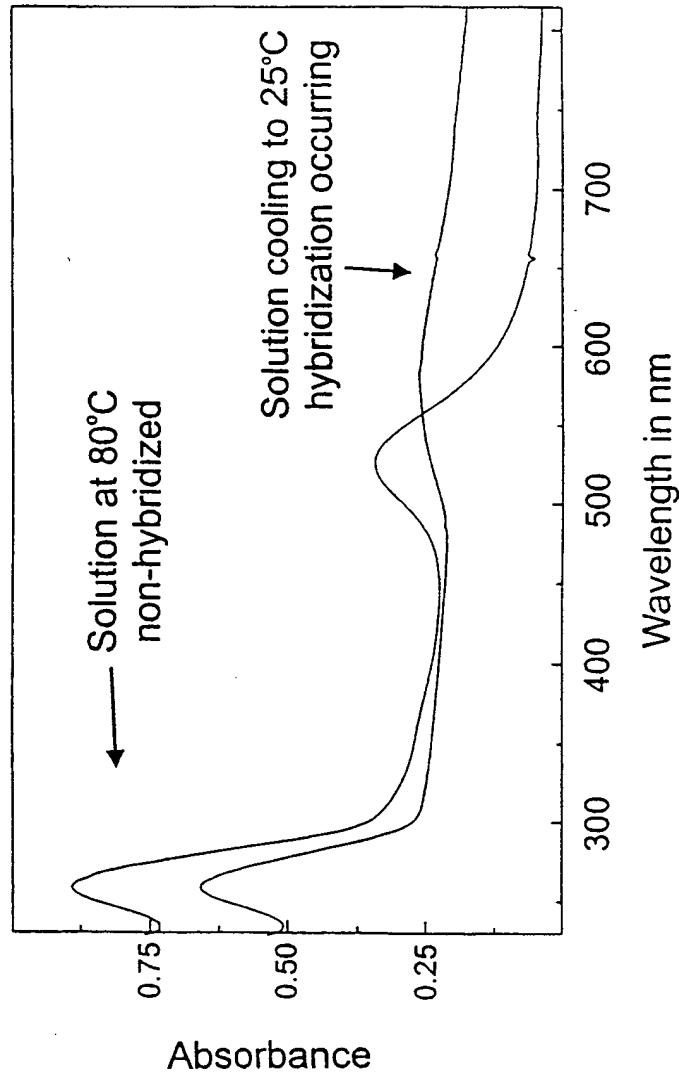


FIG. 6A FIG. 6B FIG. 6C



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FIG. 7



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FIG. 8B

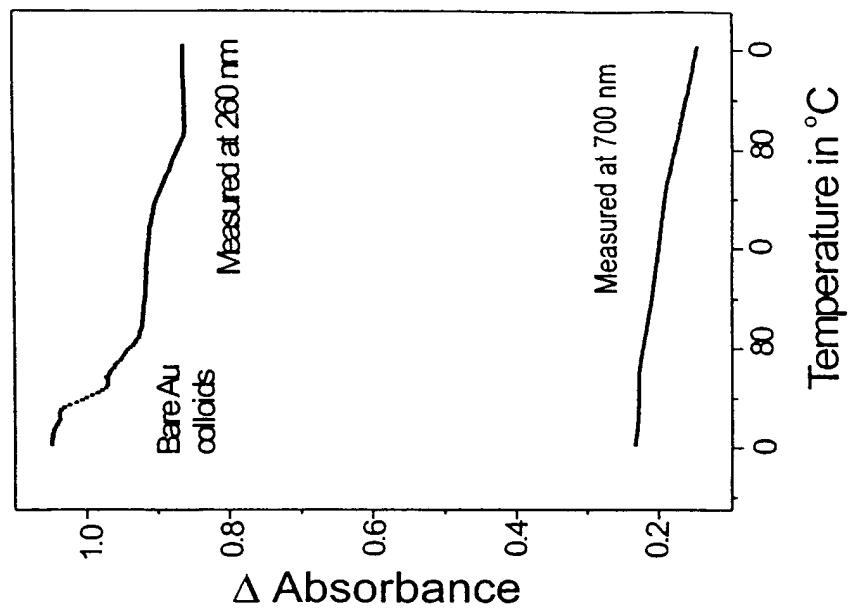
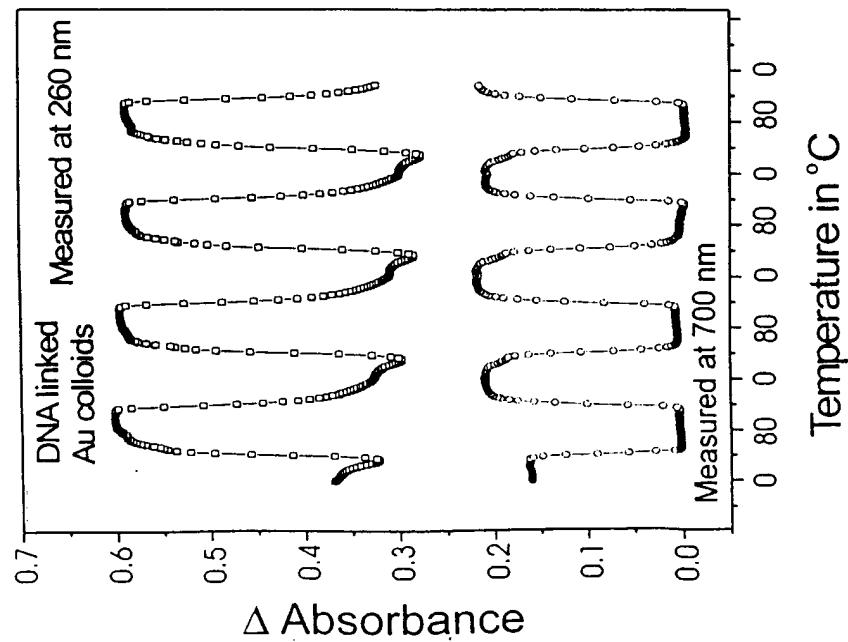


FIG. 8A



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FIG. 9A

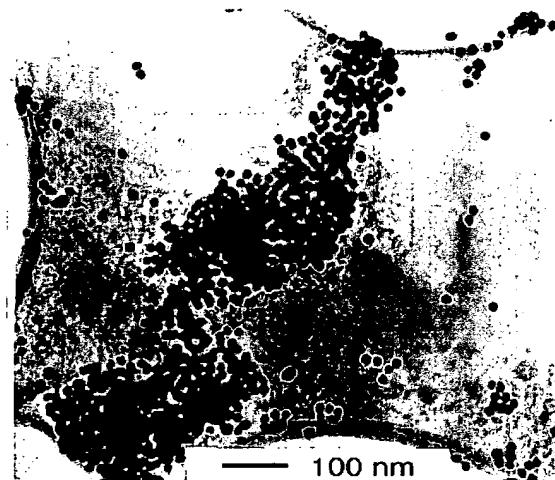
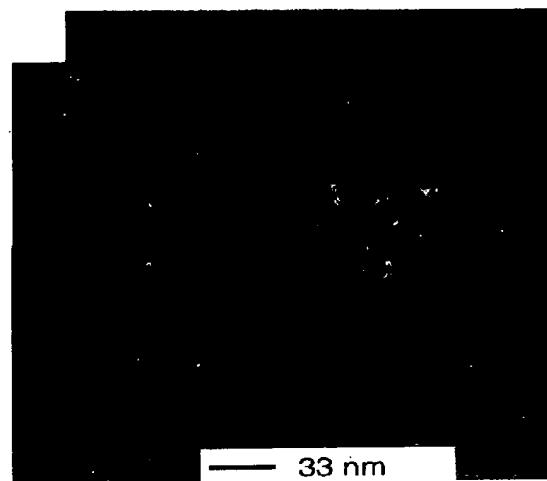


FIG. 9B

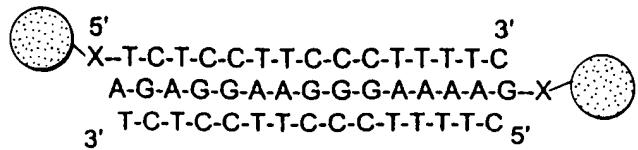
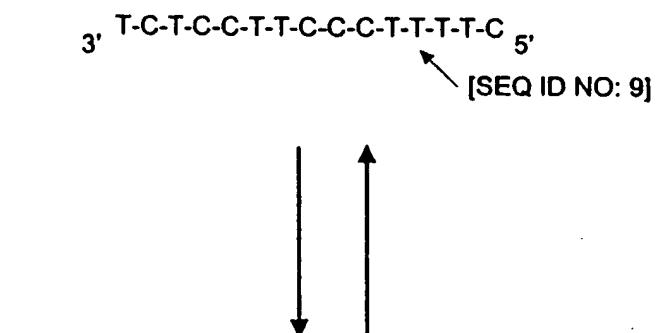
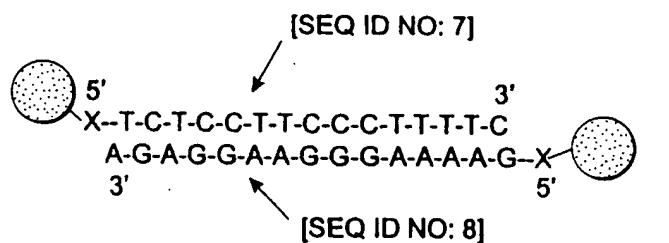


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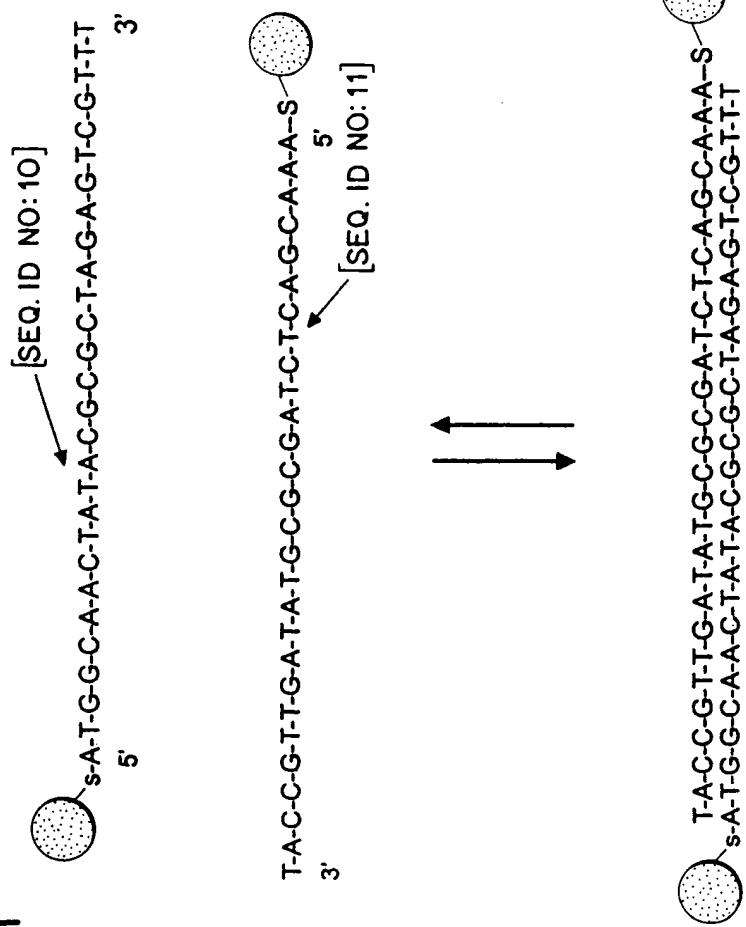
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FIG. 10



F|G.||



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FIG. 12A

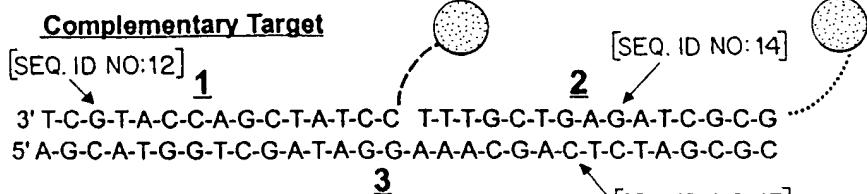


FIG. 12B

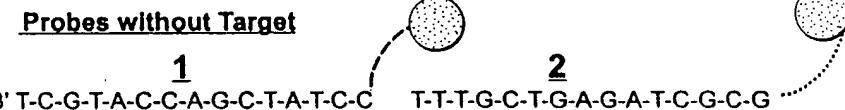


FIG. 12C

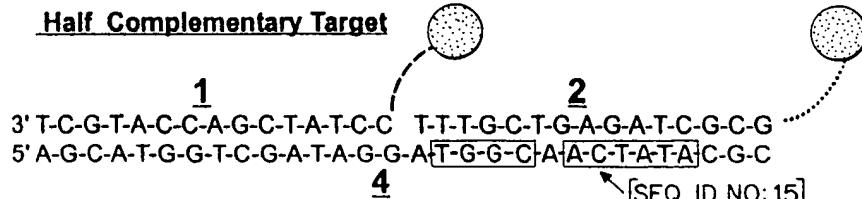


FIG. 12D

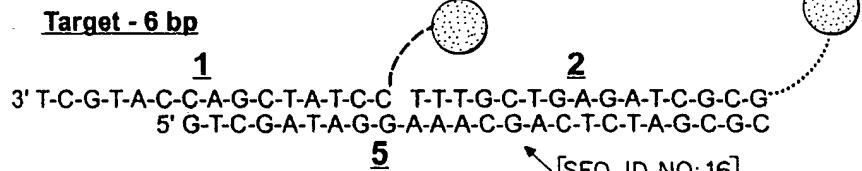


FIG. 12E

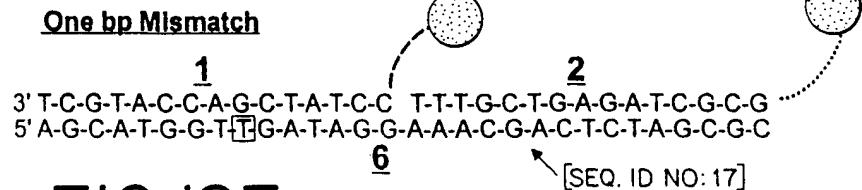
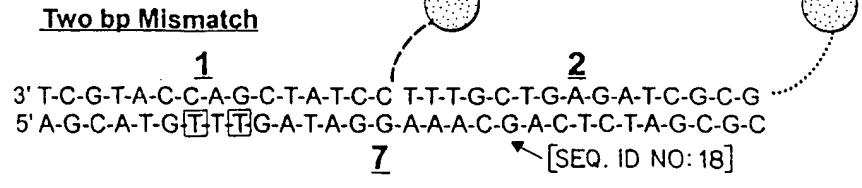


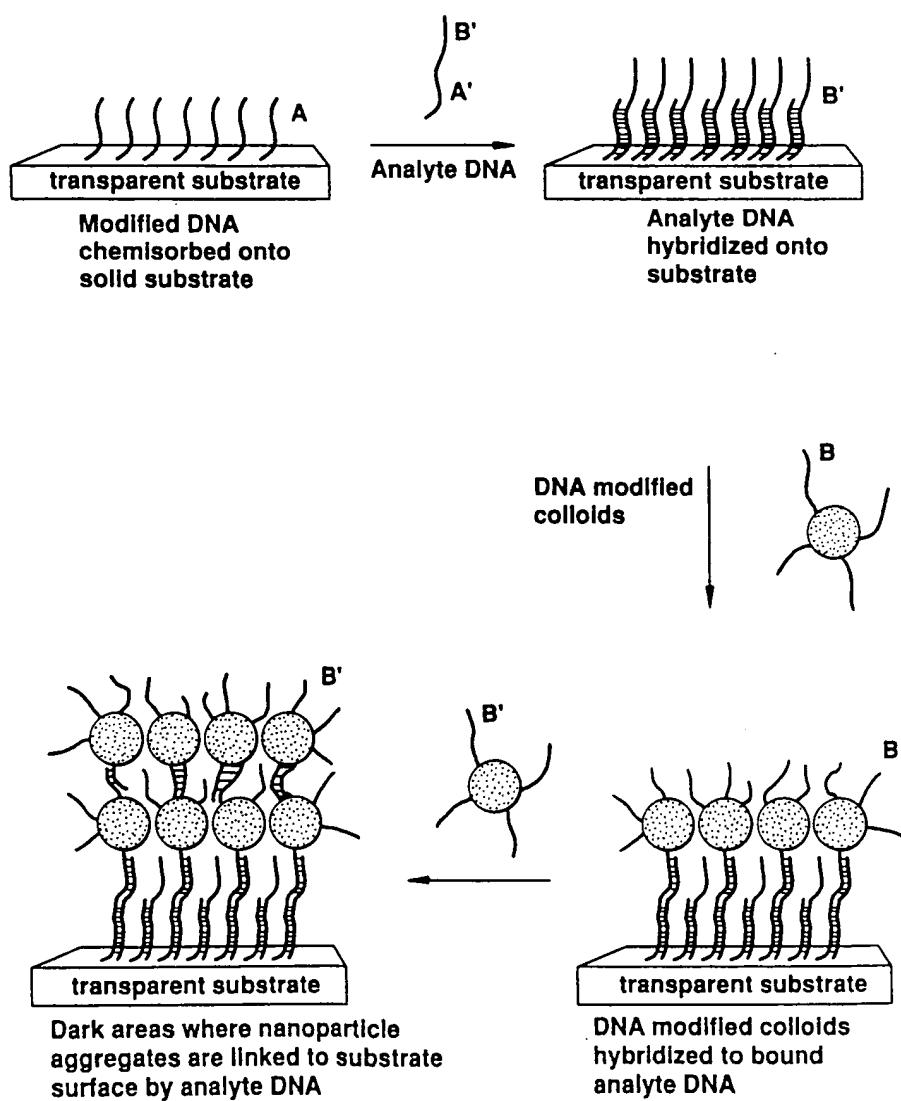
FIG. 12F



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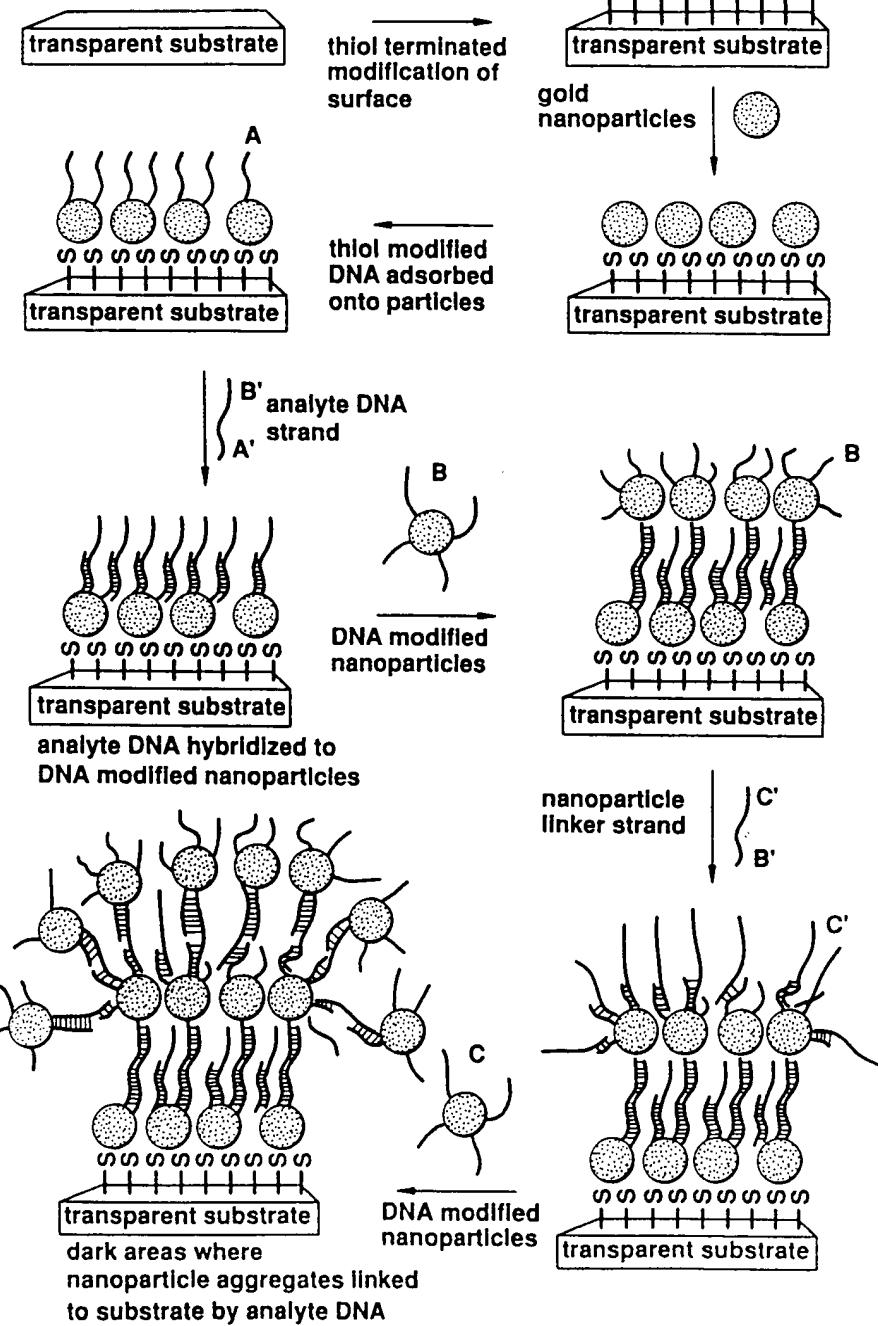
FIG. 13A



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FIG. 13B

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FIG. 14A

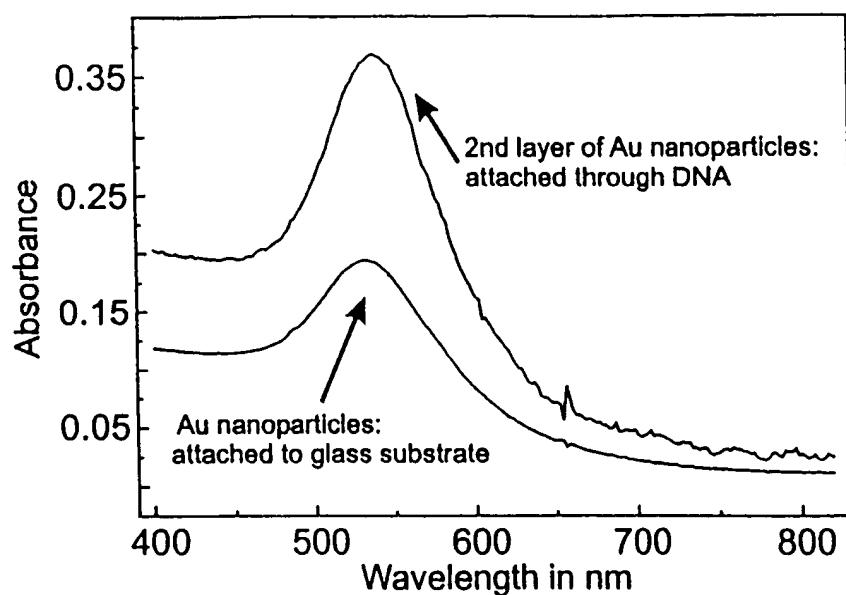
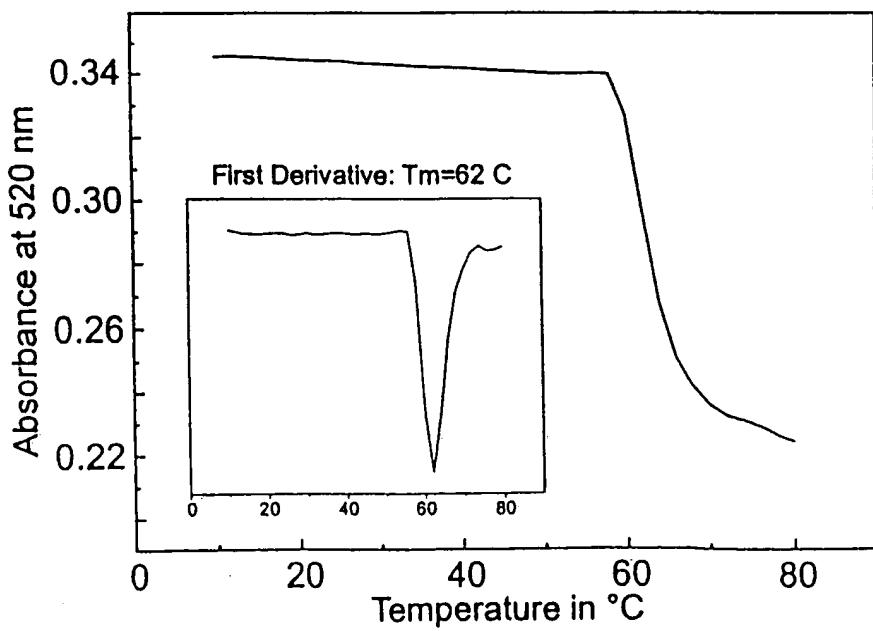


FIG. 14B



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FIG. 15A

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Probes with No Target



FIG. 15B

Half-Complementary Target

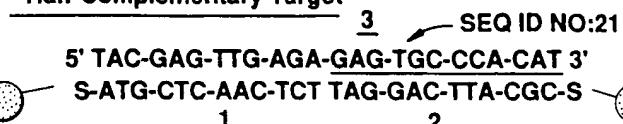


FIG. 15C

Complementary Target

Tm=53.5°C

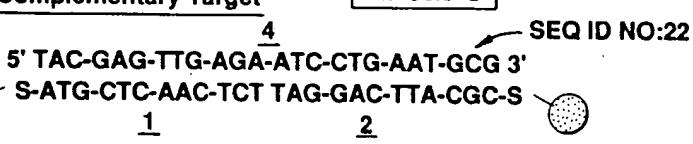


FIG. 15D

ONE Base-Pair Mismatch at Probe Head

Tm=50.4°C

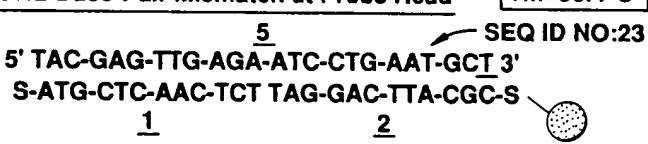


FIG. 15E

ONE Base-Pair Mismatch at Probe Tail

Tm=46.2°C

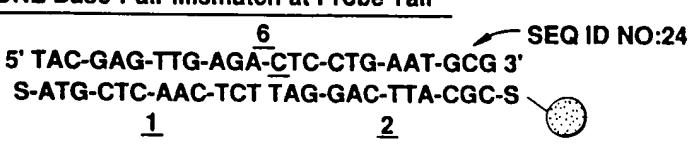


FIG. 15F

ONE Base Deletion

Tm=51.6°C

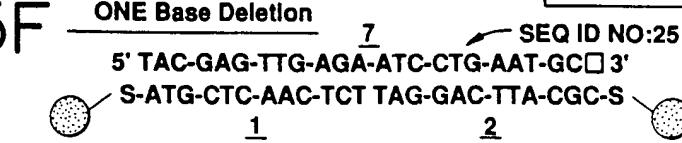
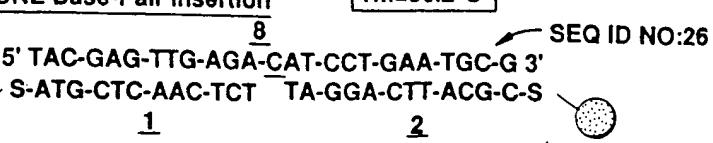


FIG. 15G

ONE Base-Pair Insertion

Tm=50.2°C



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24 Base Template

5' TAC-GAG-TTG-AGA-ATC-CTG-AAT-GCG 3'
-S-ATG-CTC-AAC-TCT TAG-GAC-TTA-CGC-S -
1
2

FIG. 16A

48 Base Template with Complementary 24 Base Filler

5' TAC-GAG-TTG-AGA-CCG-TTA-AGA-CGA-GGC-AAT-CAT-GCA-ATC-CTG-AAT-GCG 3'
-S-ATG-CTC-AAC-TCT GGC-AAT-TCT-GCT-CCG-TTA-GTA-CGT TAG-GAC-TTA-CGC-S -
1
2

FIG. 16B

72 Base Template with Complementary 48 Base Filler

5' TAC-GAG-TTG-AGA-CCG-TTA-AGA-CGA-GGC-AAT-CAT-GCA-TAT-AGC-AAC-ATC-CTG-AAT-GCG 3'
-S-ATG-CTC-AAC-TCT GGC-AAT-TCT-GCT-CCG-TTA-GTA-CGT-TAA-CCT-GCG-AAA-TGC-CTG-TTG TAG-GAC-TTA-CGC-S -
1
2

FIG. 16C

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FIG. 17B

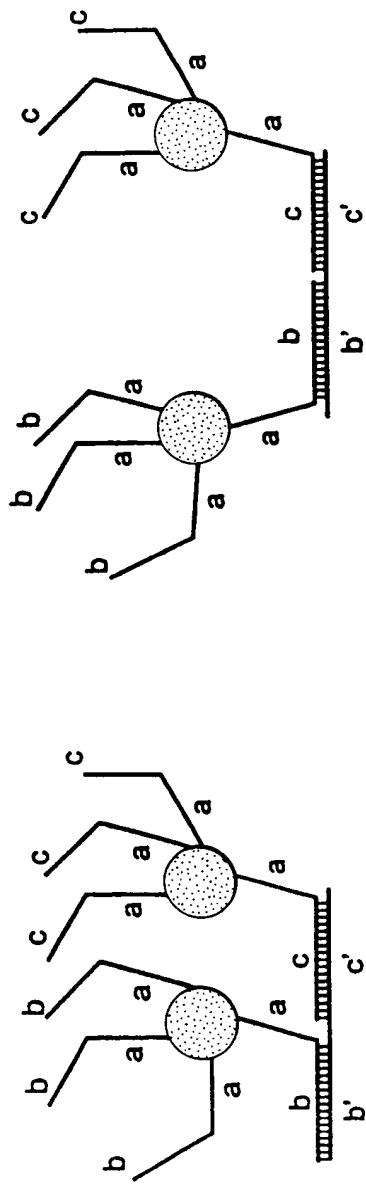


FIG. 17A

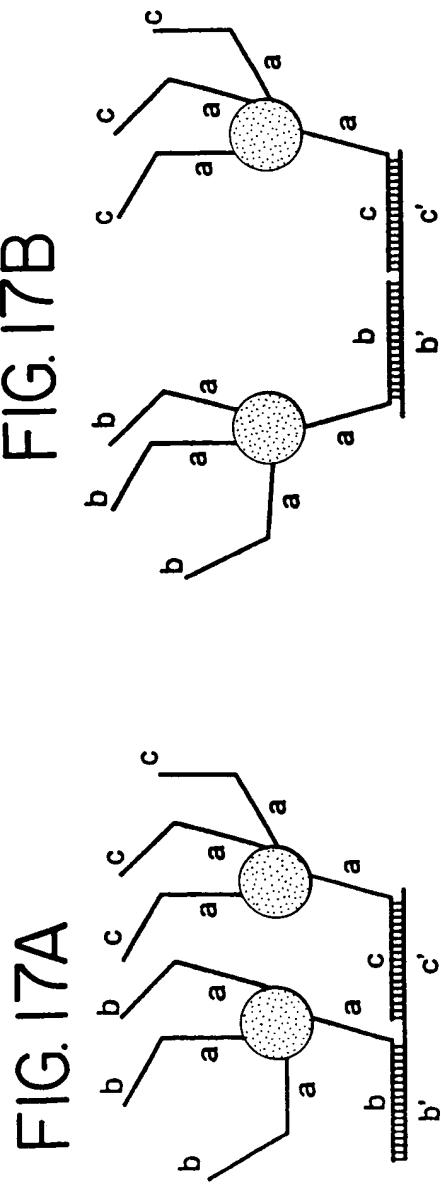
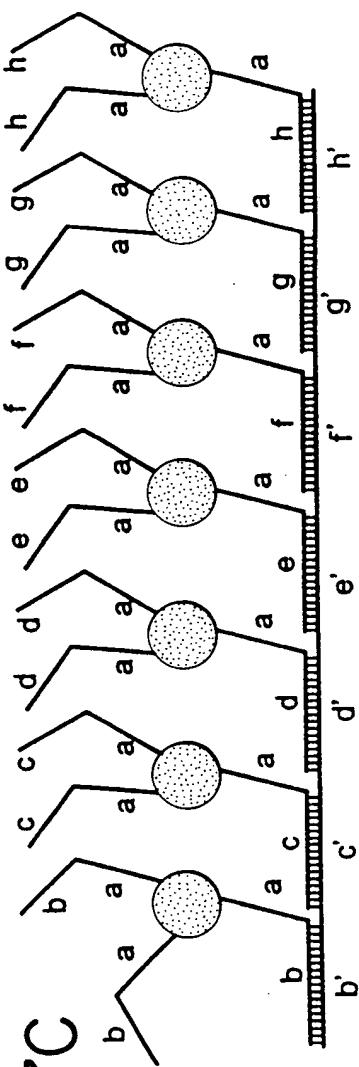


FIG. 17C



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FIG. 17D

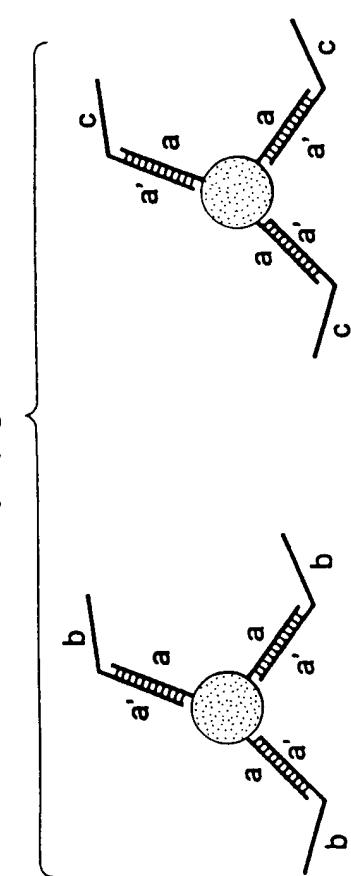


FIG. 17E

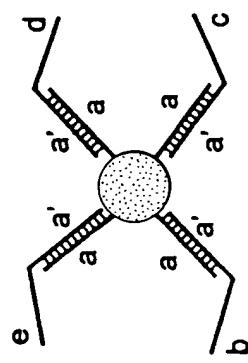
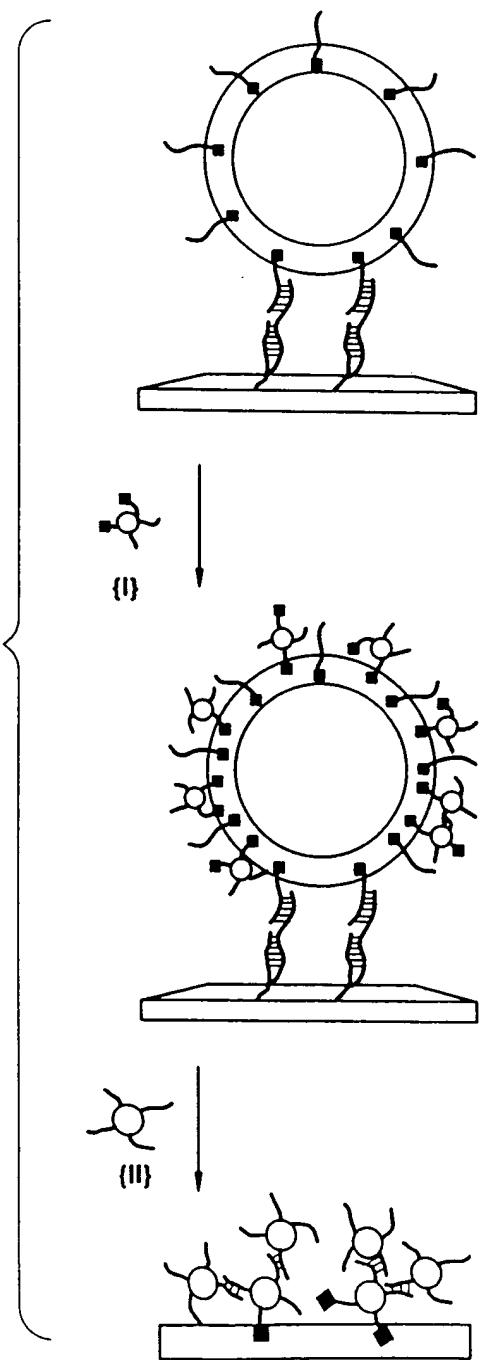


FIG. 18

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FIG. 19A 21/47

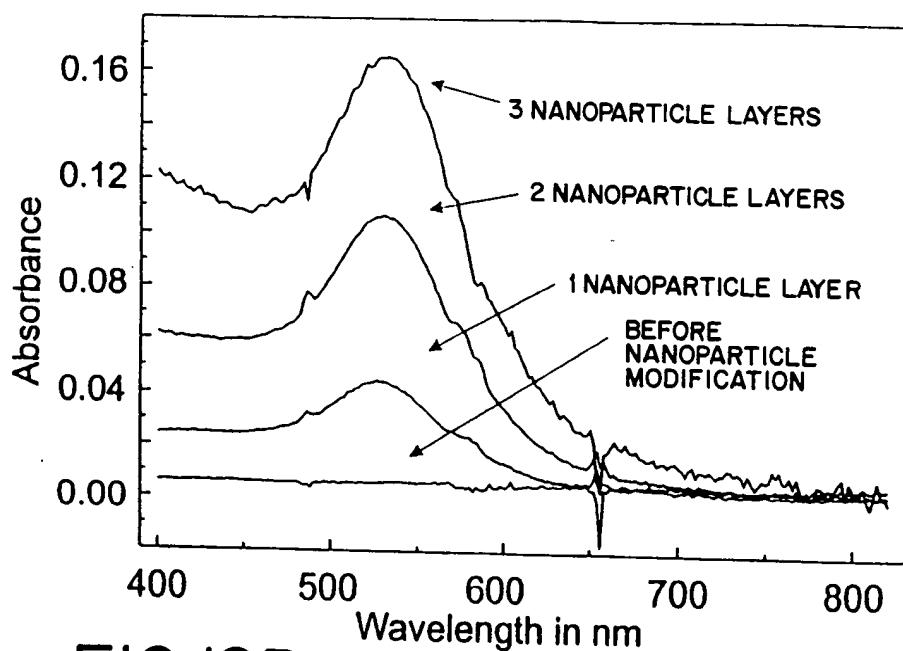
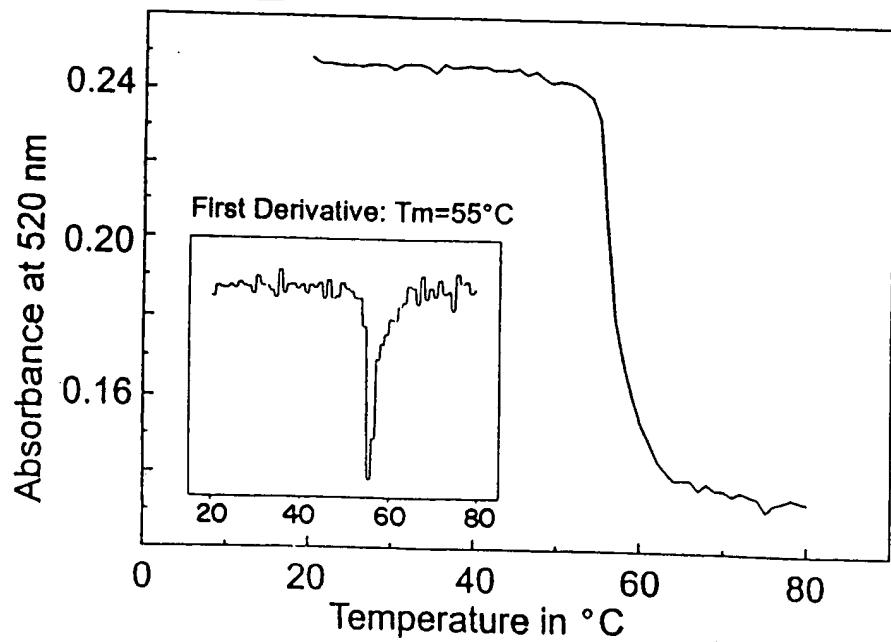


FIG. 19B



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FIG. 20A

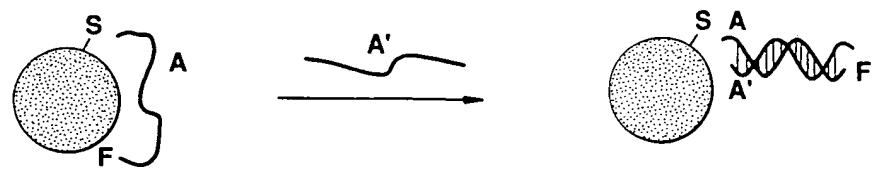


FIG. 20B

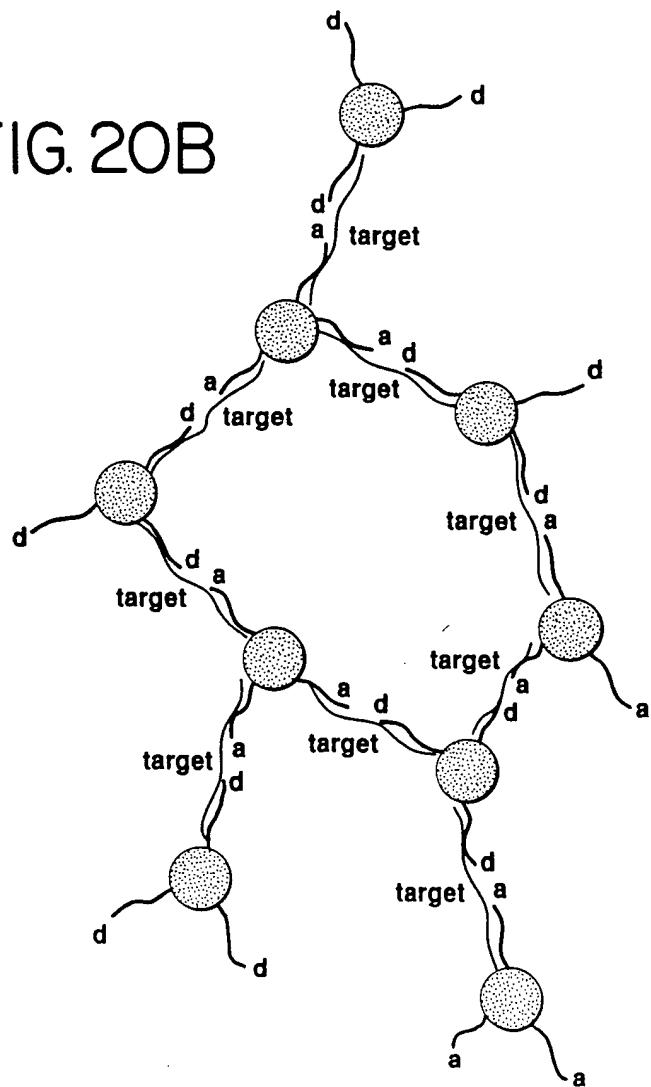
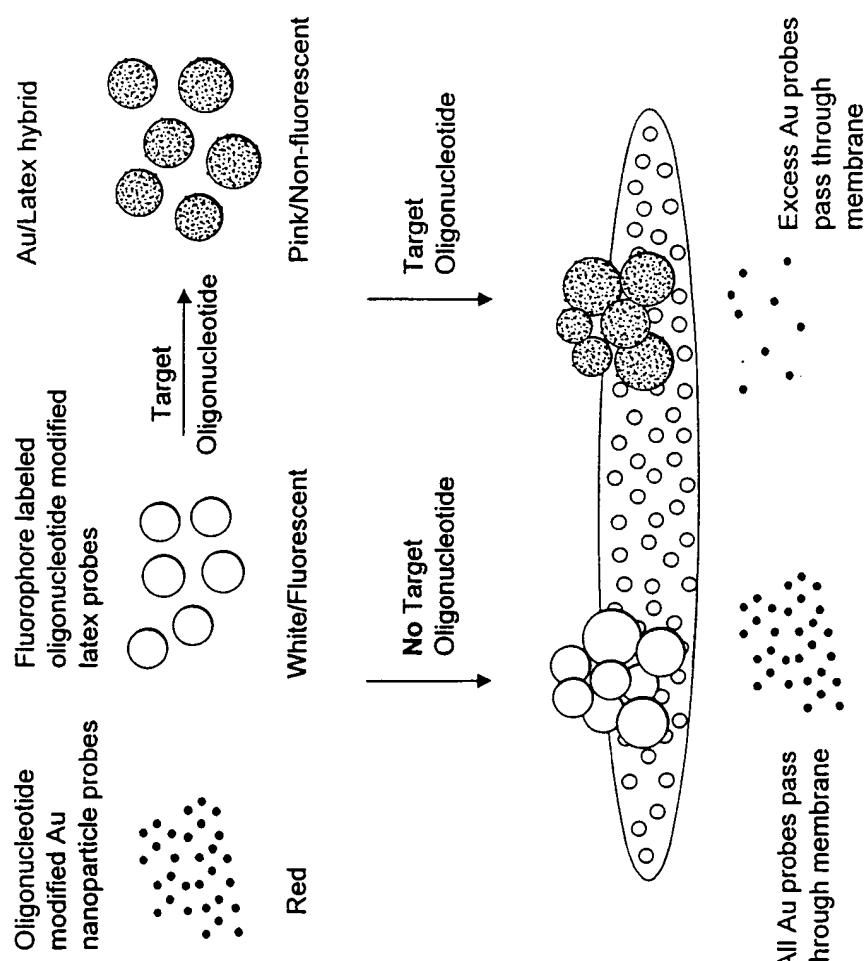


FIG. 2I

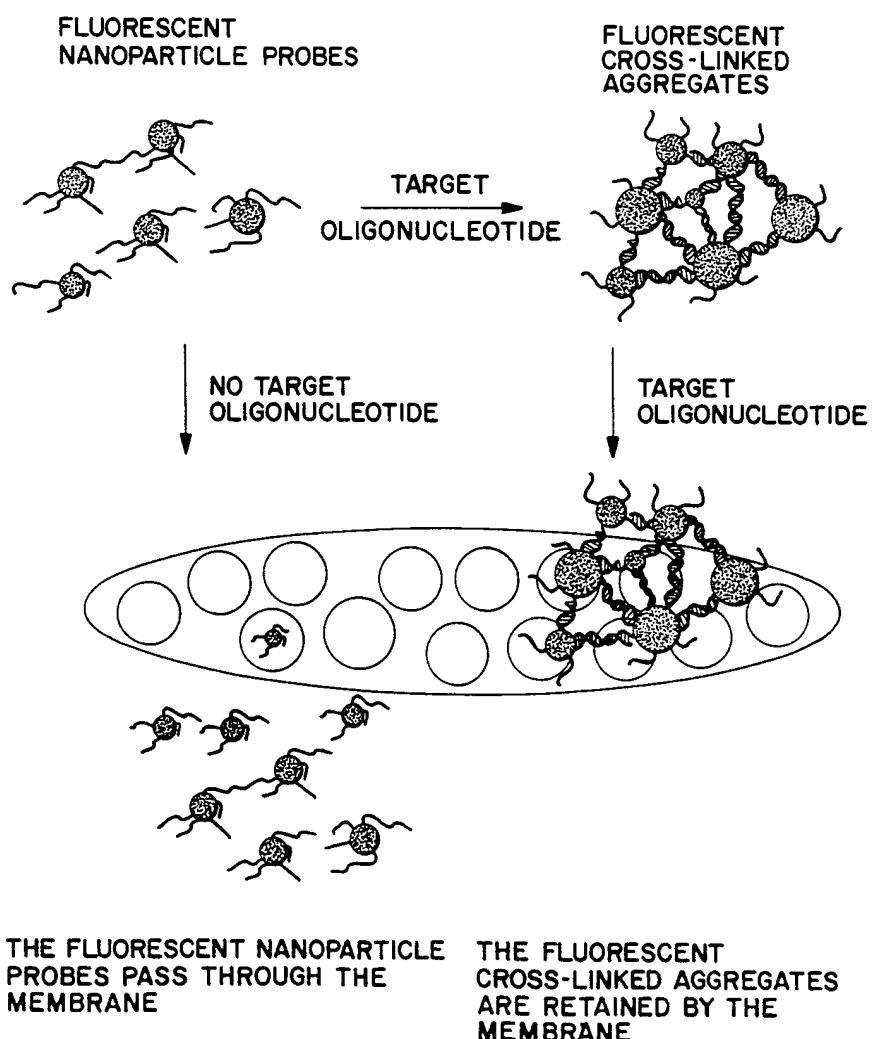


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FIG. 22



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FIG. 23

Anthrax PCR Product

5' G GCG GAT GAG TCA GTA GTT AAG GAG GCT CAT AGA GAA GTA ATT AAT
3' C CGC CTA CTC AGT CAT CAA TTC CTC CGA GTA TCT CTT CAT TAA TTA

TCG TCA ACA GAG GGA TTA TTG TTA AAT ATT GAT AAG GAT ATA AGA AAA
AGC AGT TGT CTC CCT AAT AAC AAT TTA TAA CTA TTC CTA TAT TCT TTT

ATA TTA TCC AGG GTT ATA TTG TAG AAA TTG AAG ATA CTG AAG GGC TT 3'
TAT AAT AGG TCC CAA TAT AAC ATC TTT AAC TTC TAT GAC TTC CCG AA 5'

141 mer Anthrax PCR product [SEQ ID NO:36]

3' CTC CCT AAT AAC AAT 

[SEQ ID NO:37]

3' TTA TAA CTA TTC CTA 

[SEQ ID NO:38]

Oligonucleotide-Nanoparticle Probes

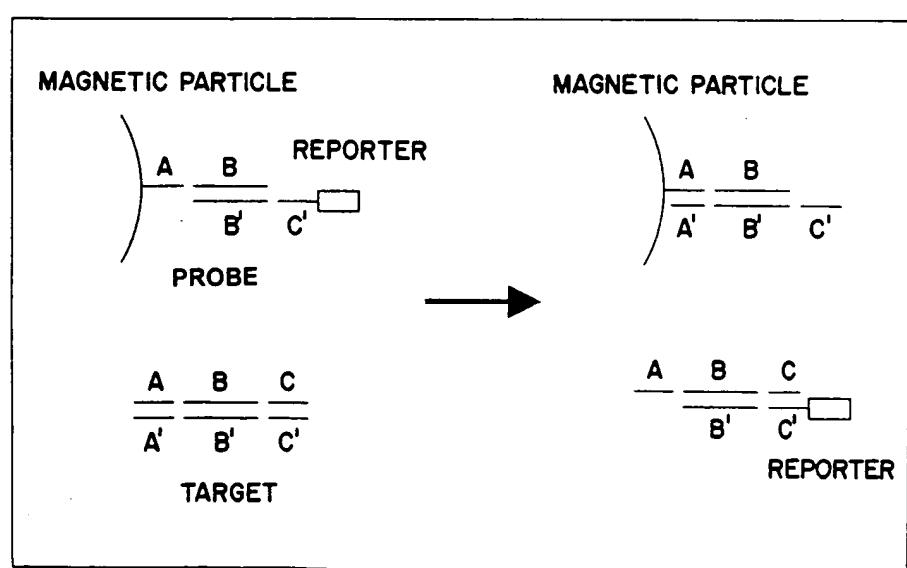
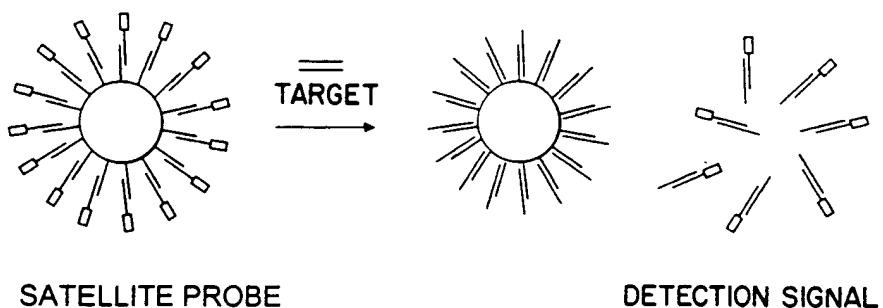
Blocker Oligonucleotides

3' C CGC CTA CTC AGT CAT CAA TTC CTC CGA GT	[SEQ ID NO:39]
3' A TCT CTT CAT TAA TTA AGC AGT TGT	[SEQ ID NO:40]
3' TAT TCT TTT TAT AAT AGG TCC CAA TAT	[SEQ ID NO:41]
3' AAC ATC TTT AAC TTC TAT GAC TTC CCG AA	[SEQ ID NO:42]

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FIG. 24



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FIG. 25A

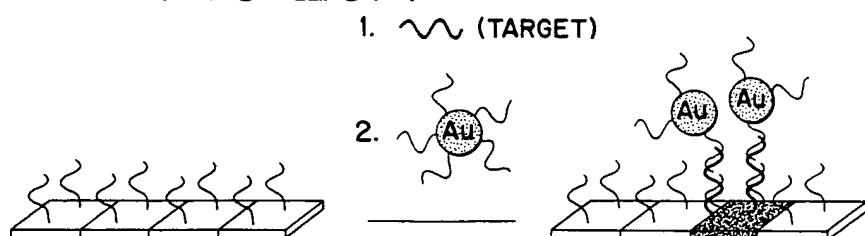
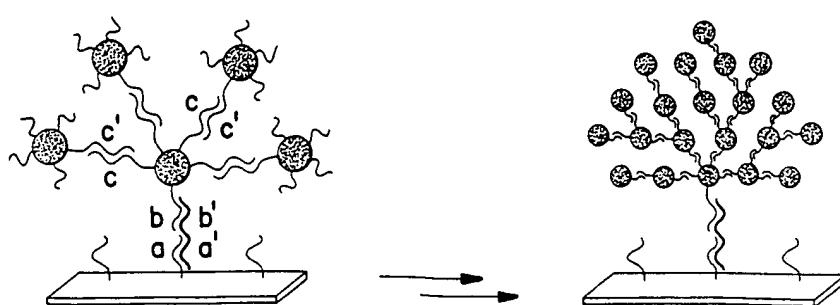
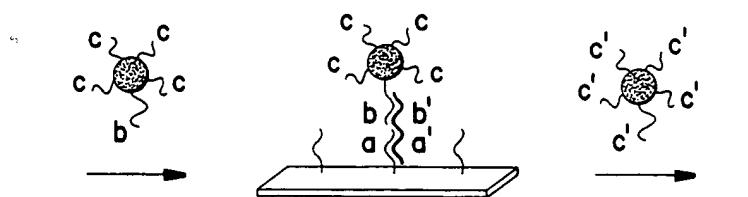
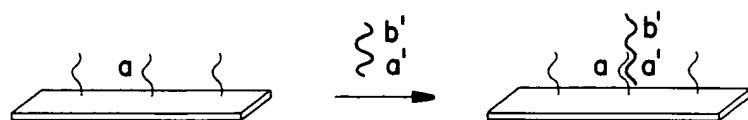


FIG. 25B



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FIG. 26A

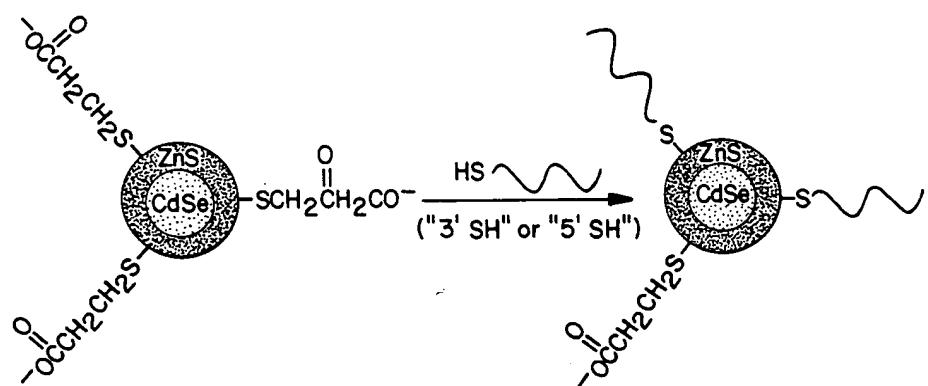
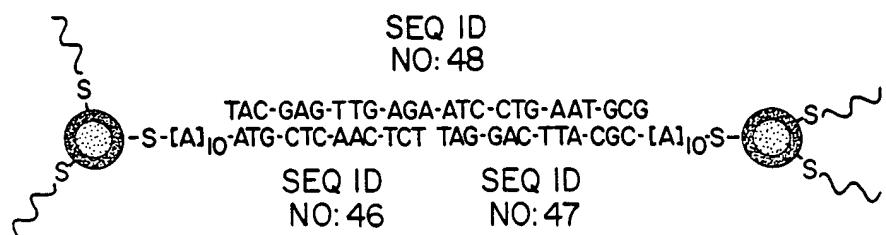


FIG. 26B



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FIG. 27A

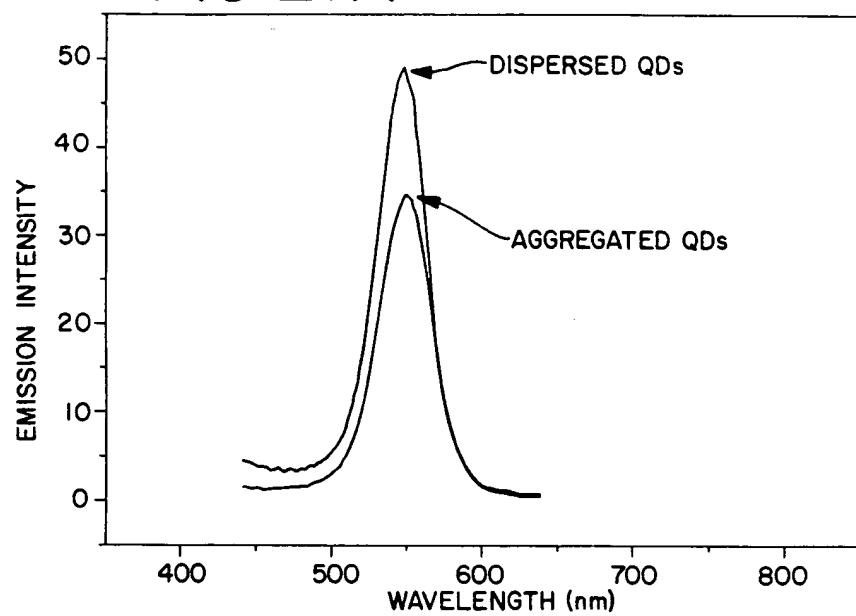
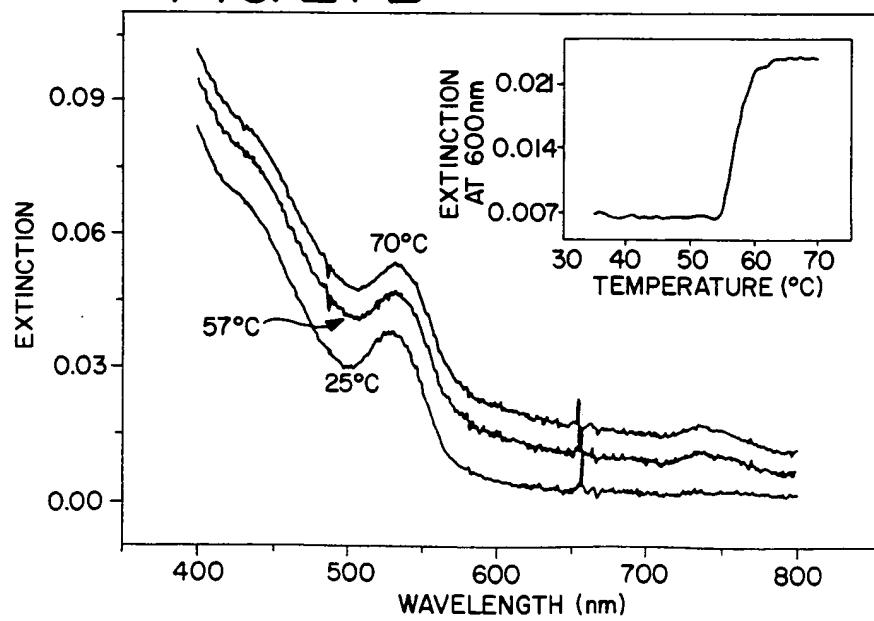


FIG. 27B



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FIG. 27C

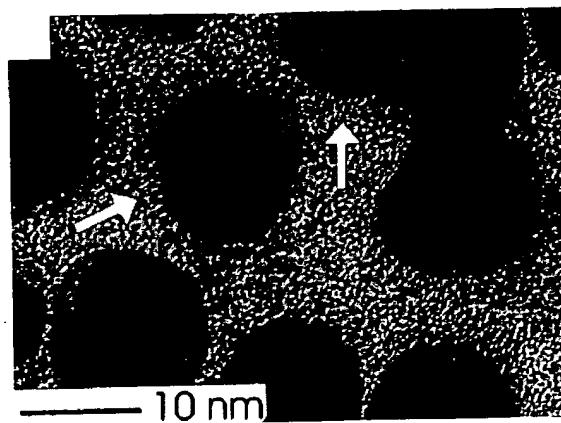
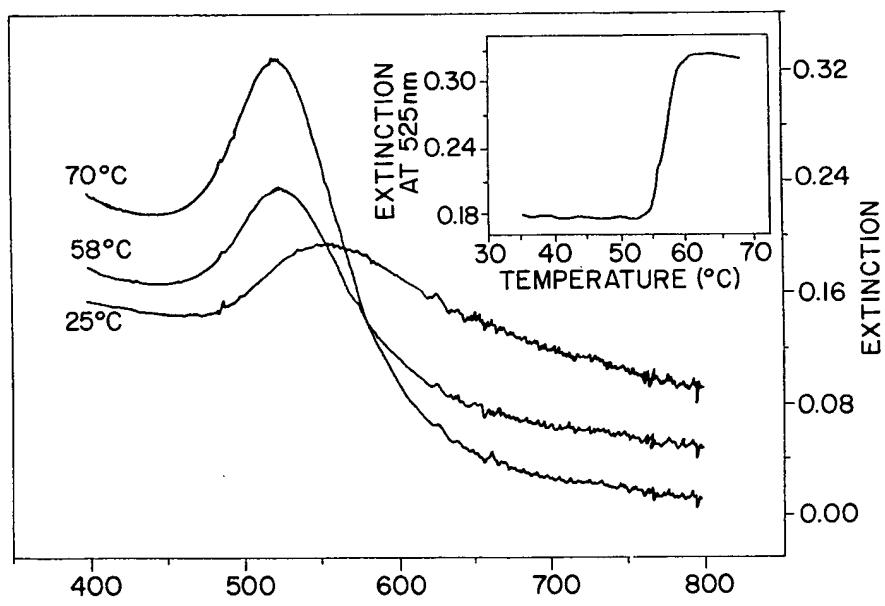


FIG. 27D

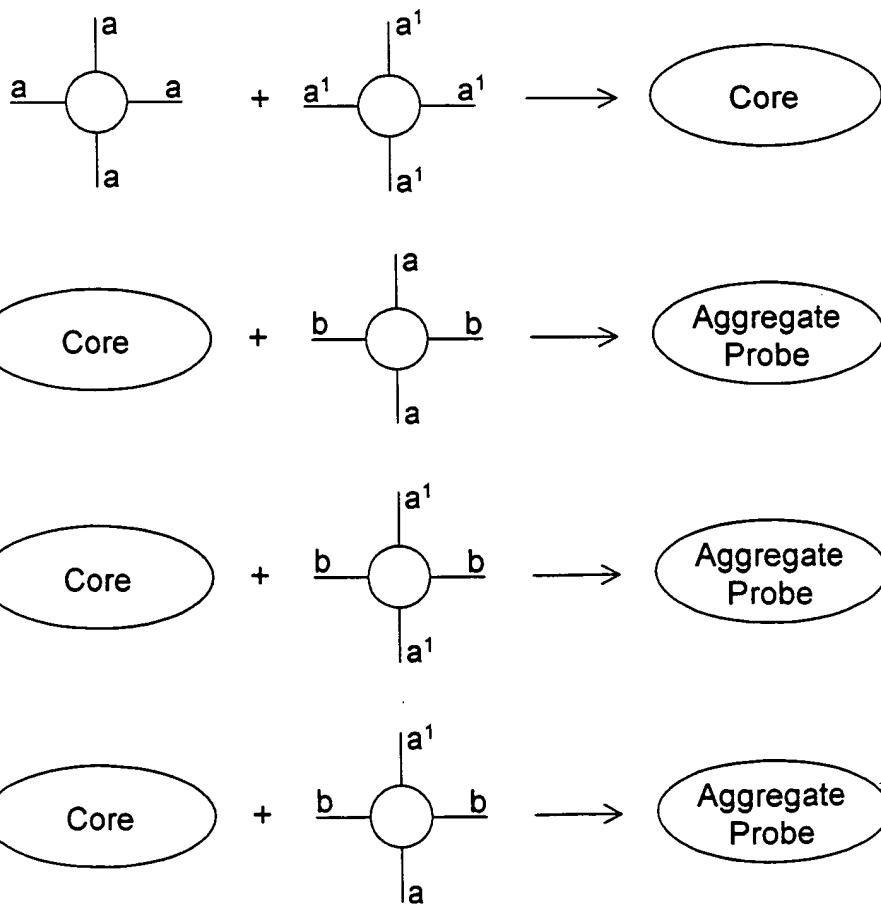


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FIG. 28A



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FIG. 28B

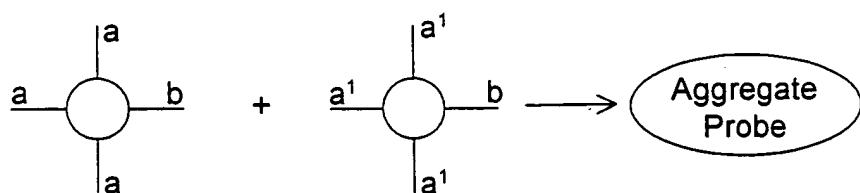
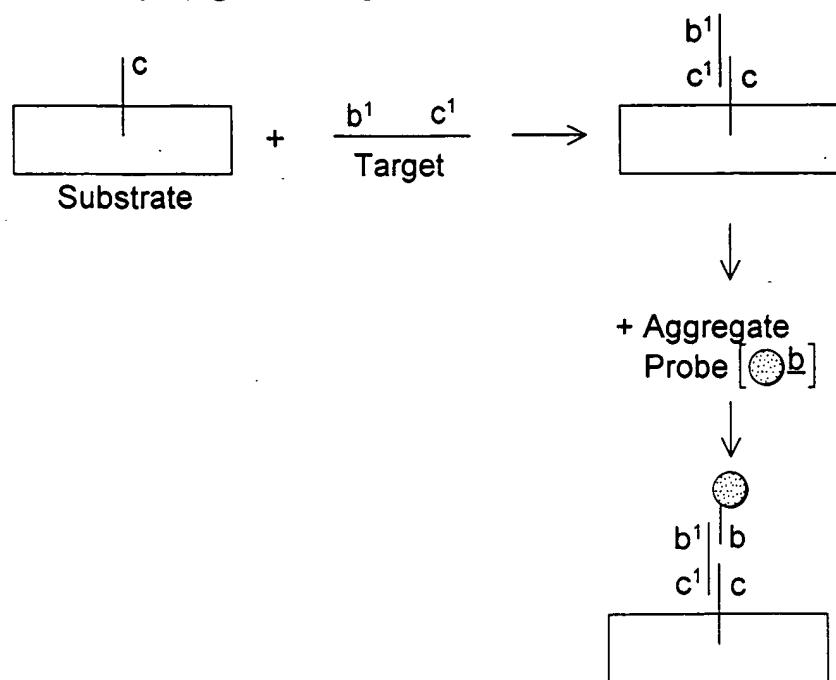


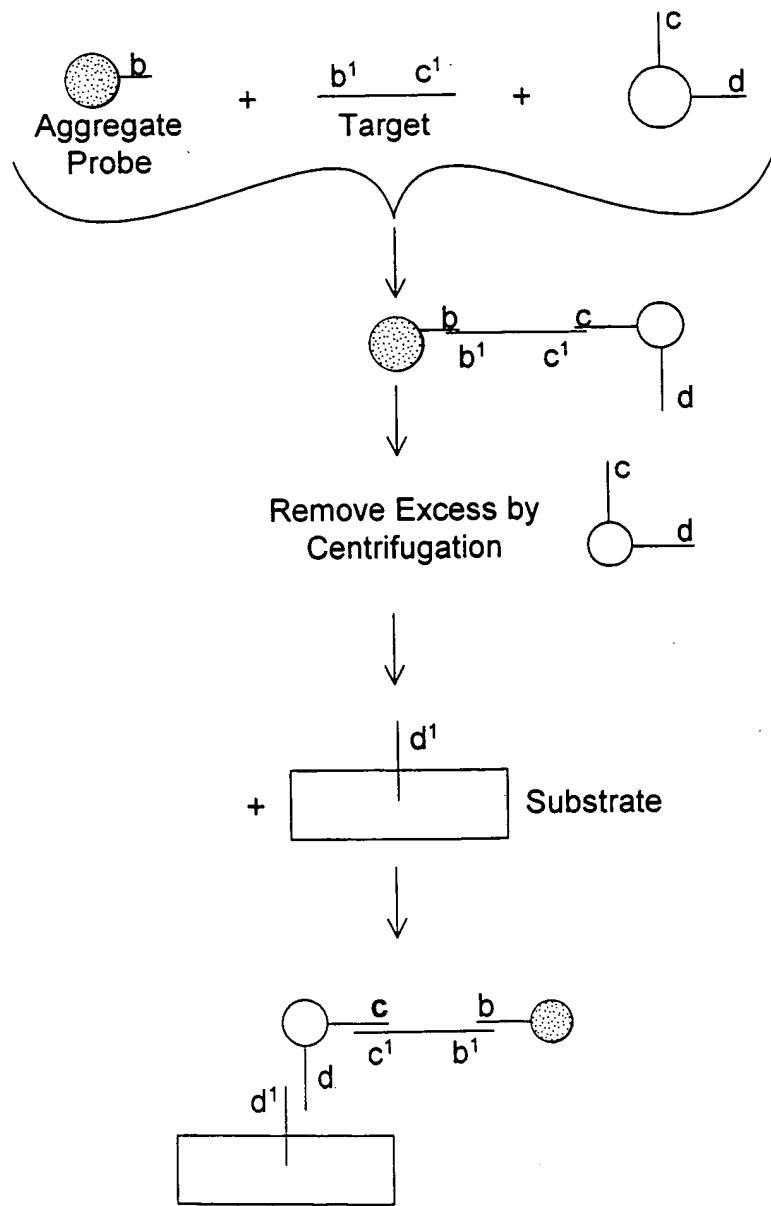
FIG. 28C



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Mirkin et al."
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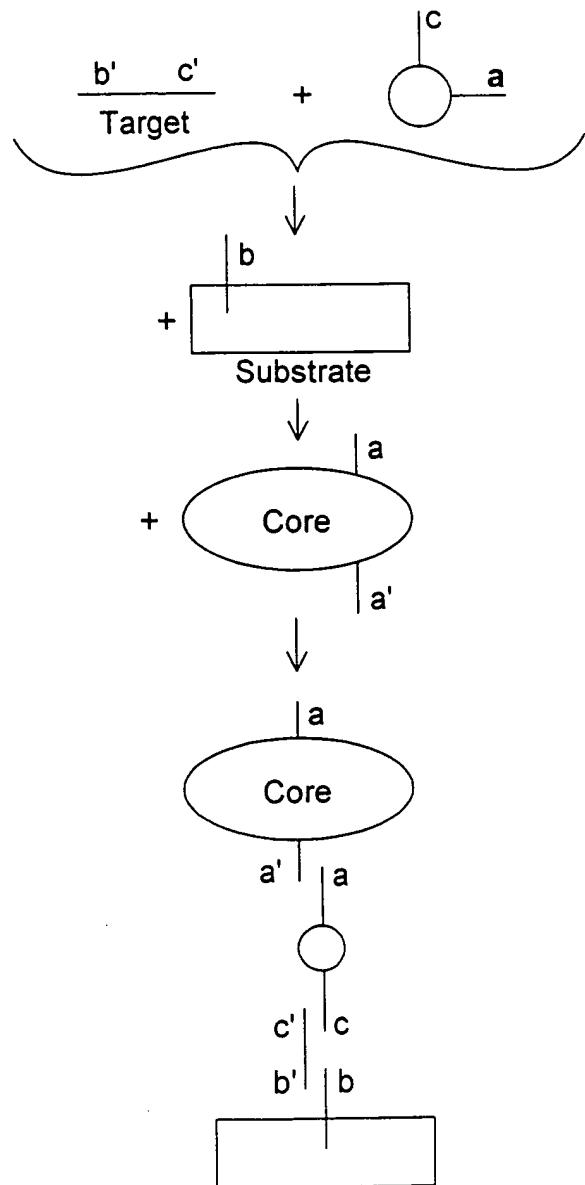
FIG. 28D



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Mirkin et al.
MBHB Case No. 00-713-i8

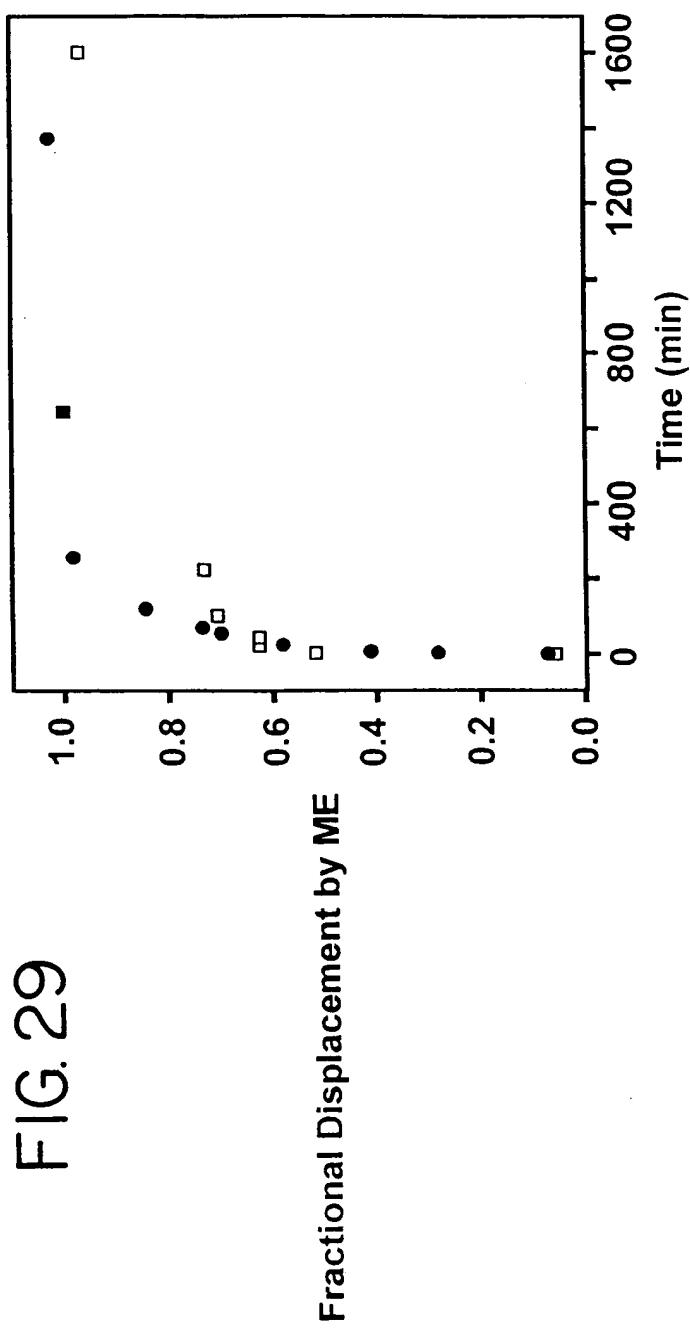
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FIG. 28E



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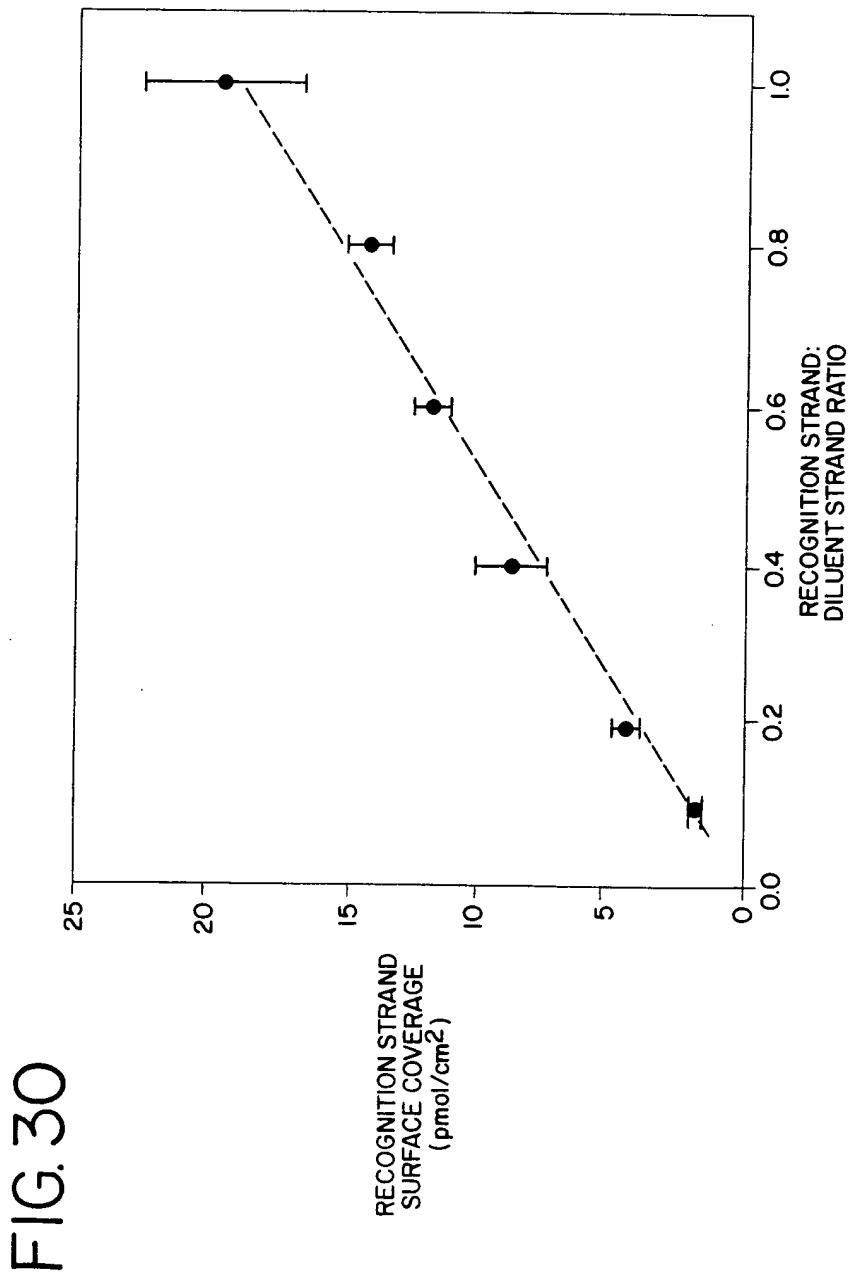
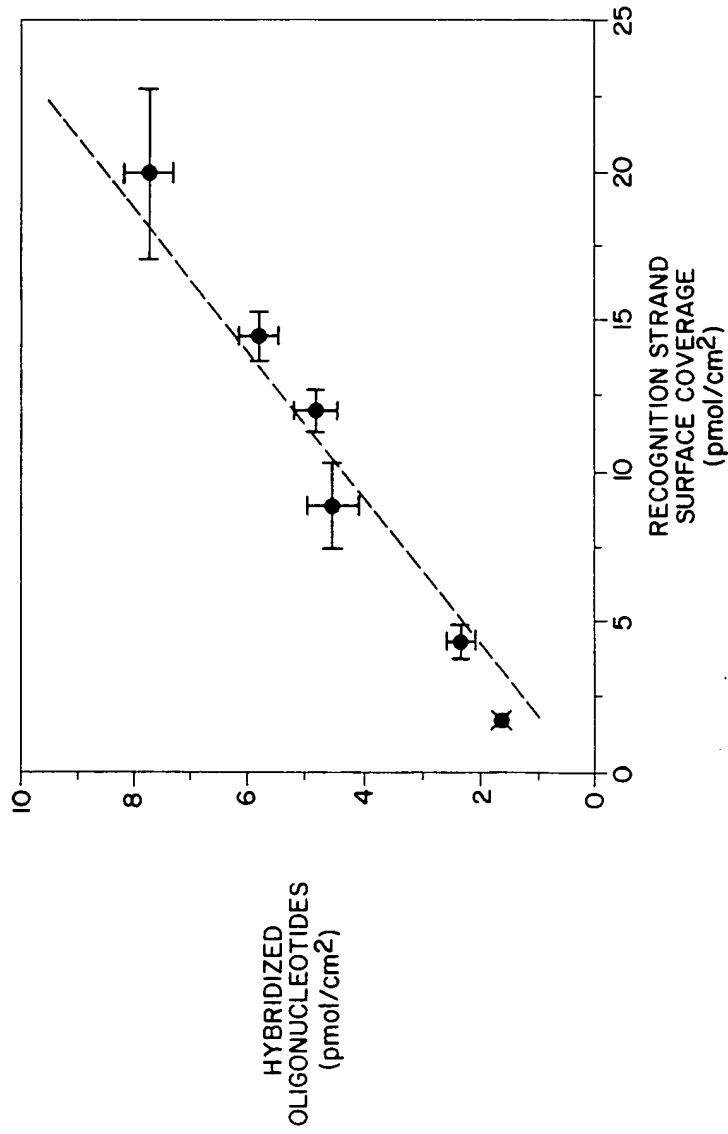


FIG. 3I

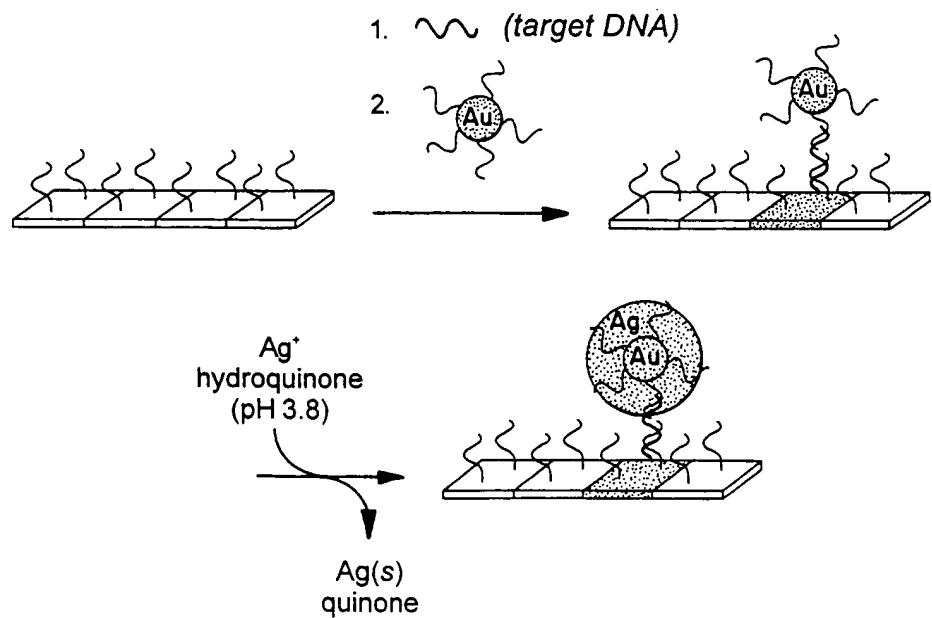
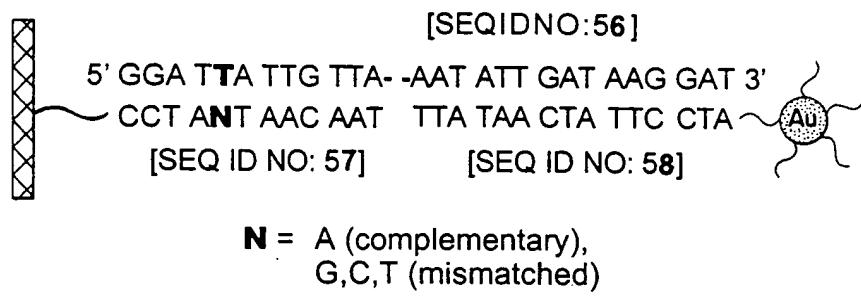


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Thereto and Uses Therefor"
Mirkin et al."
MBHB Case No. 00-713-i8

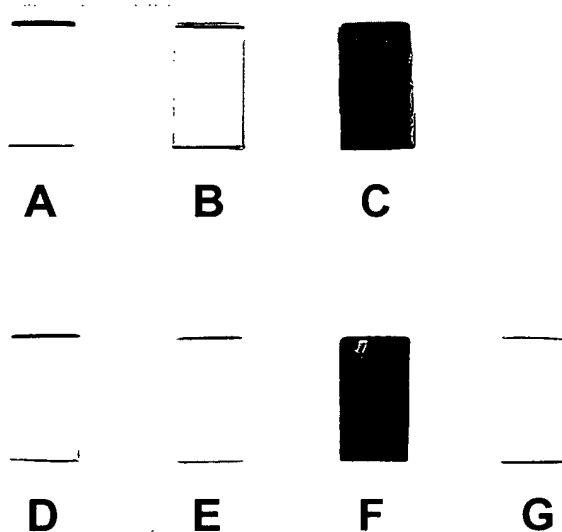
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FIG. 32



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FIG. 33



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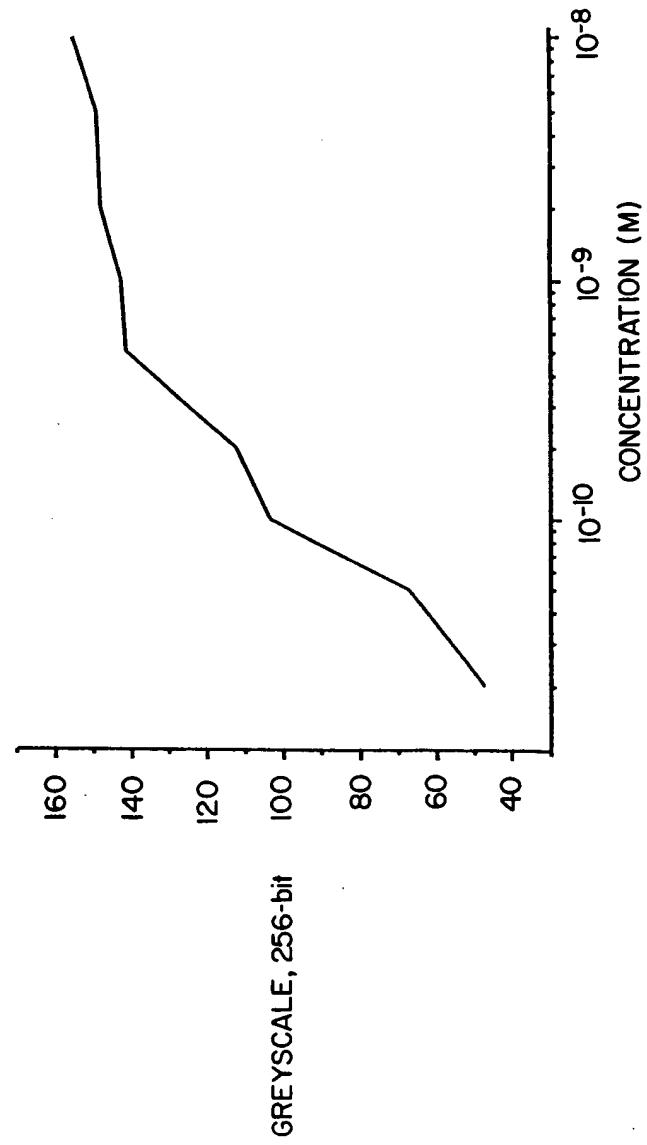


FIG. 34

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FIG.35A

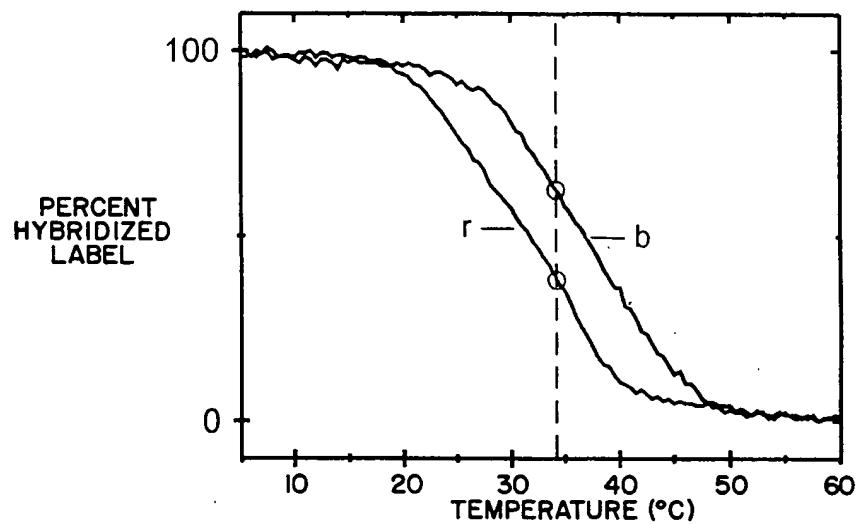
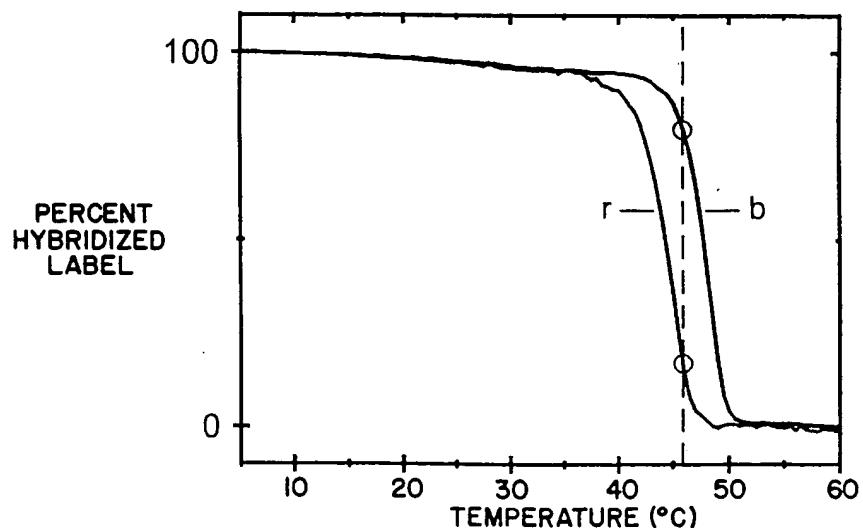


FIG.35B



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FIG.36A

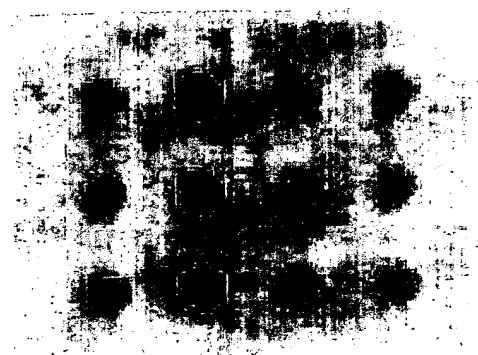
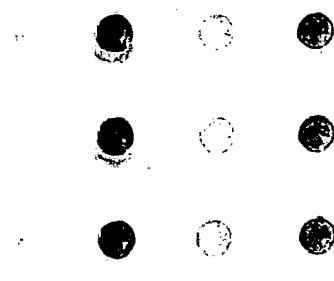


FIG.36B



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FIG. 37A

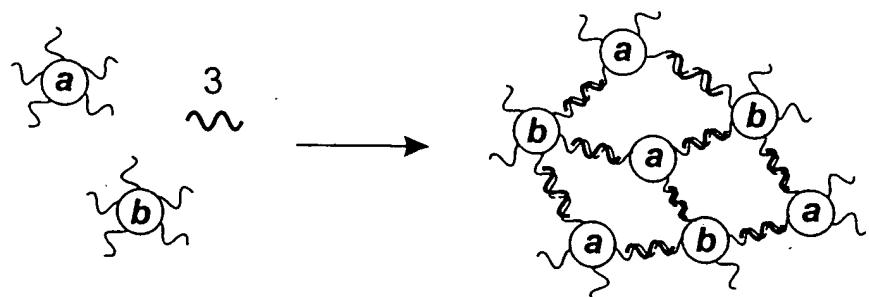
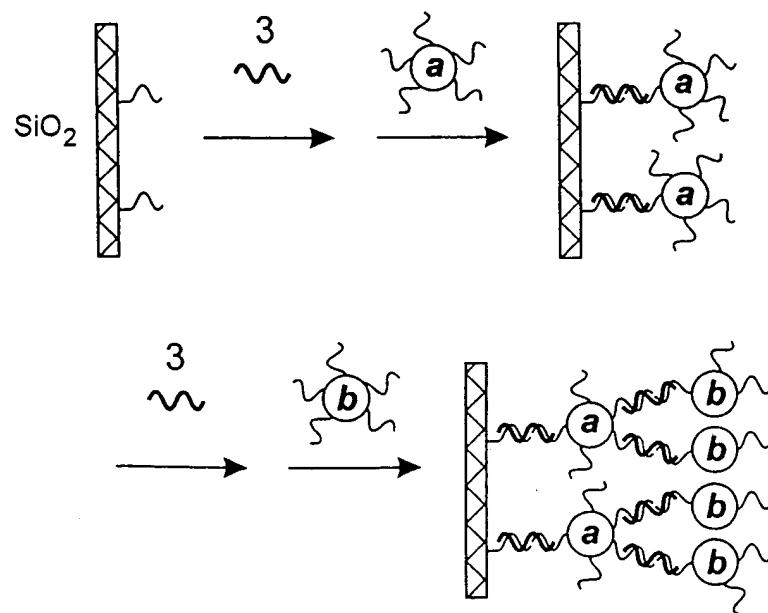


FIG. 37B



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FIG. 38A

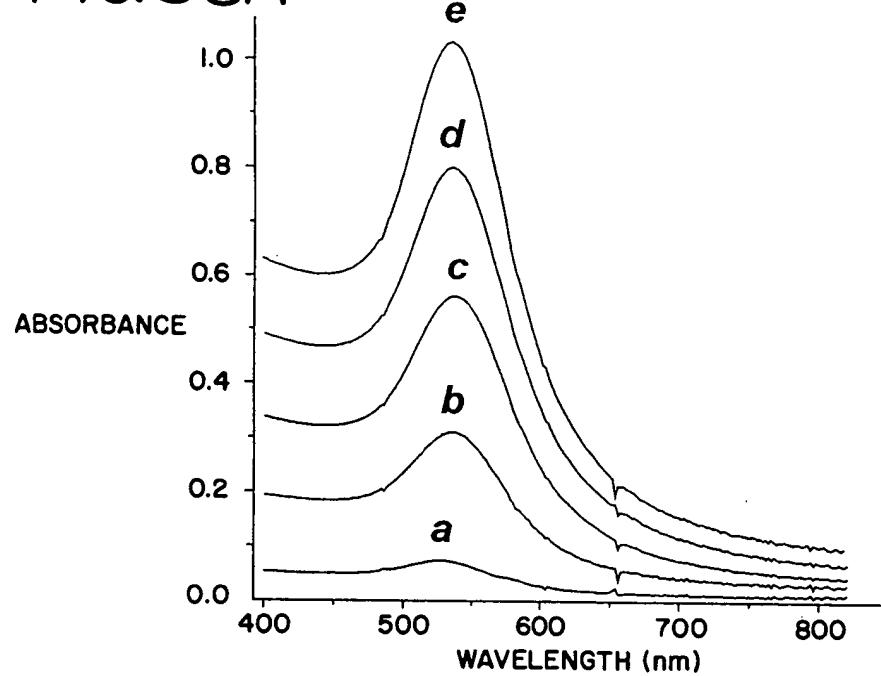
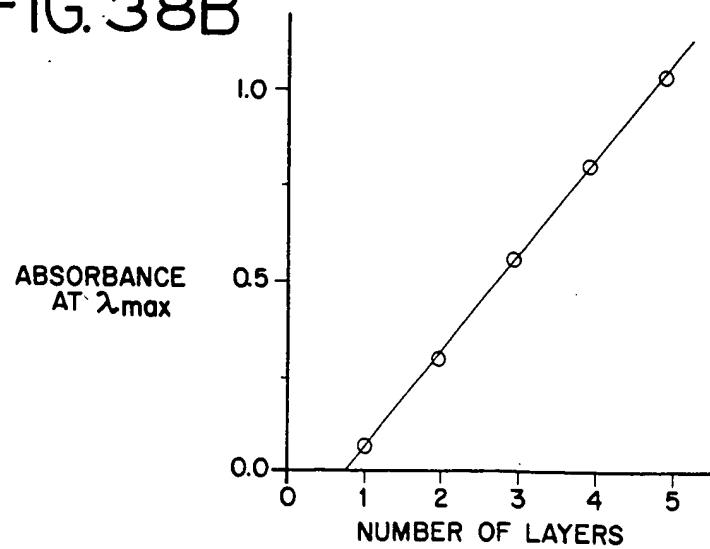


FIG. 38B



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FIG.39A

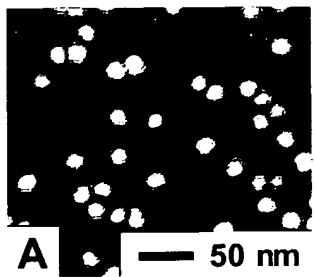
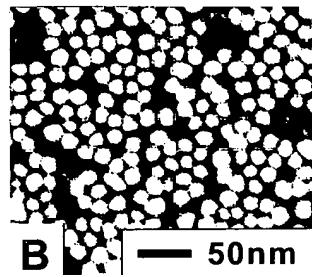


FIG.39B



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FIG.39C

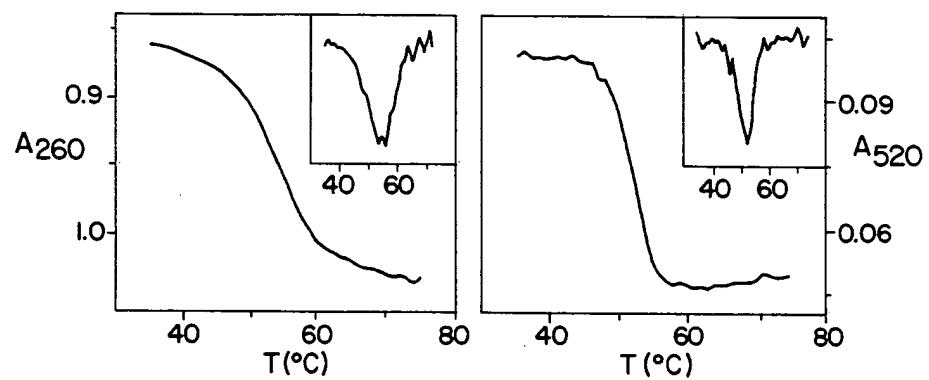


FIG.39D

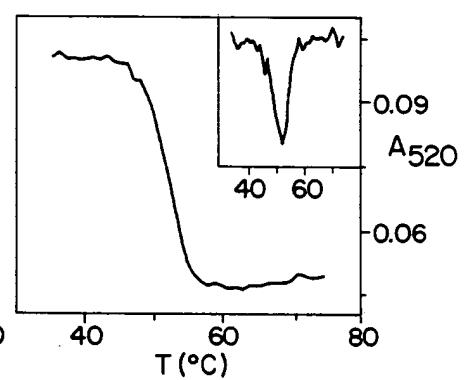


FIG.39E

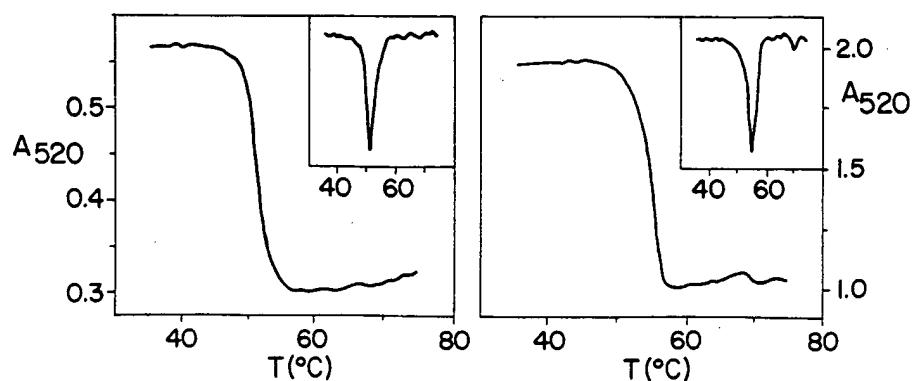


FIG.39F

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FIG. 40

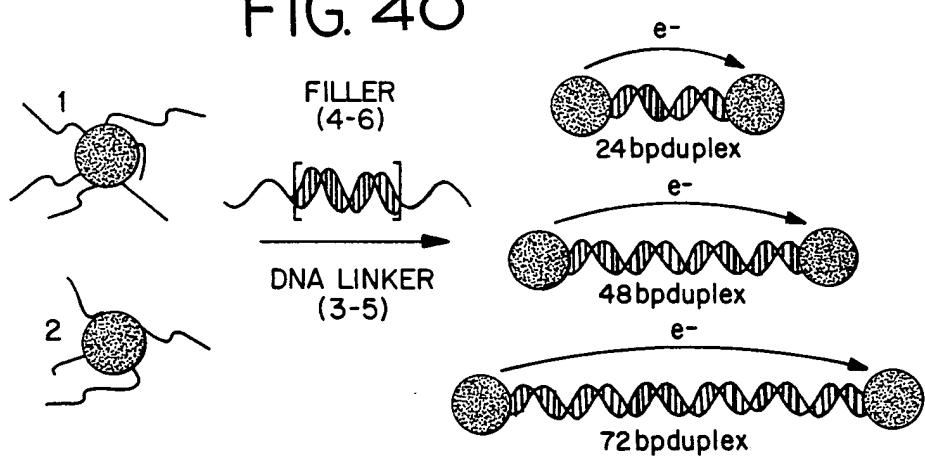
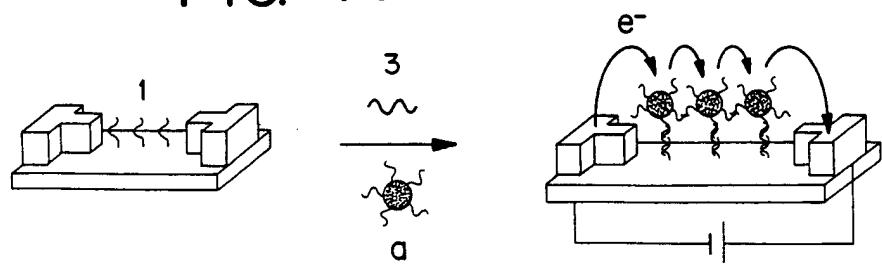


FIG. 41



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